

# **Final Request for Amendment #6 for the Stateline Wind Project**

Prepared for



Prepared by



**November 2021**

This page intentionally left blank

## Table of Contents

1.0	Introduction .....	1
1.1	Project Summary and Request.....	1
1.2	Procedural History.....	2
1.3	Amendment Required under OAR 345-027-0350 and Review Process under OAR 345-027-0351.....	3
2.0	Certificate Holder Information – OAR 345-027-0360(1)(a).....	7
2.1	Name of the Facility .....	7
2.2	Name and Mailing Address of the Certificate Holder.....	7
2.3	Current Parent Company of Certificate Holder.....	8
2.4	Name and Mailing Address of the Individuals Responsible for Submitting the Request.....	8
3.0	Detailed Description of the Proposed Change – OAR 345-027-0360(1)(b) .....	8
3.1	Repowering .....	8
3.2	Battery Storage .....	11
3.3	Effect of Proposed Changes on the Facility – OAR 345-027-0360(1)(b)(A) .....	14
3.4	Applicable Laws and Council Rules – OAR 345-027-0360(1)(b)(B).....	15
3.5	Location of the Proposed Change – OAR 345-027-0060(1)(b)(C).....	15
4.0	Division 21 Requirements – OAR 345-027-0060(1)(c) .....	16
4.1	Required Permits – OAR 345-021-0010(1)(e).....	16
4.2	Materials Analysis – OAR 345-021-0010(1)(f) .....	16
4.3	Other Participants – OAR 345-021-0010(1)(a) .....	18
4.4	Construction Schedule – OAR 345-021-0010(1)(b)(F) .....	18
5.0	Site Certificate Revisions – OAR 345-027-0360(1)(d) .....	19
6.0	Other Standards and Permits – OAR 345-027-0360(1)(e).....	19
6.1	Applicable Division 22 Standards .....	25
6.1.1	General Standard of Review – OAR 345-022-0000 .....	25
6.1.2	Organizational Expertise – OAR 345-022-0010 .....	25
6.1.3	Structural Standard – OAR 345-022-0020.....	27
6.1.4	Soil Protection – OAR 345-022-0022 .....	30
6.1.5	Land Use – OAR 345-022-0030 .....	33
6.1.6	Protected Areas – OAR 345-022-0040 .....	37
6.1.7	Retirement and Financial Assurance – OAR 345-022-0050.....	38

6.1.8	Fish and Wildlife Habitat – OAR 345-022-0060 .....	40
6.1.9	Threatened and Endangered Species – OAR 345-022-0070 .....	42
6.1.10	Scenic Resources – OAR 345-022-0080 .....	43
6.1.11	Historical, Cultural and Archaeological Resources – OAR 345-022-0090 .....	44
6.1.12	Recreation – OAR 345-022-0100 .....	49
6.1.13	Public Services – OAR 345-022-0110 .....	49
6.1.14	Waste Minimization – OAR 345-022-0120 .....	52
6.2	Applicable Division 24 Standards .....	54
6.2.1	Public Health and Safety Standards for Wind Energy Facilities – OAR 345-024-0010 .....	54
6.2.2	Siting Standards for Wind Energy Facilities – OAR 345-024-0015 .....	56
6.3	Other Standards and Laws .....	57
6.3.1	Noise Control Regulations – OAR 340-035-0035 .....	57
6.3.2	Removal-Fill Law .....	59
6.3.3	Water Rights .....	59
7.0	Property Owners Located within or Adjacent to the Site of the Facility – OAR 345-027-0360(1)(f) .....	59
8.0	Conclusion .....	60
9.0	References .....	60

## **List of Tables**

Table 1. Wind Turbine Specifications for Approved Wind Projects and Vansycle II (Proposed) .....	5
Table 2. Turbine Specifications Existing and Proposed .....	9
Table 3. Estimated Maximum Permanent and Temporary Impacts .....	16
Table 4. Proposed Turbine Updates .....	19
Table 5. Standards and Laws Relevant to Proposed Amendment .....	21
Table 6. Permanent and Temporary Disturbance Acreages by Habitat Type .....	41
Table 7. Previously Conducted Cultural Resource Surveys Covering the Analysis Area .....	45

## **List of Graphics**

Graphic 1. Typical 50-MW Battery Energy Storage System Conceptual Site Plan.....12

## **List of Figures**

Figure 1. Project Location  
Figure 2. Project Facilities  
Figure 3. Temporary and Permanent Impacts  
Figure 4. Zone of Visual Influence Comparative Analyses  
Figure 5. Habitat Mapping  
Figure 6. Noise Sensitive Receptors

## **List of Attachments**

Attachment 1. Stateline Wind Project Red-lined Site Certificate  
Attachment 2. Arlington Landfill Information  
Attachment 3. Land Use: Applicable Substantive Criteria  
Attachment 4. Decommissioning Cost Estimates  
Attachment 5. Washington Ground Squirrel Surveys  
Attachment 6. Raptor Nest Surveys  
Attachment 7. Rare Plant Survey and Habitat Mapping  
Attachment 8. Cultural Resources Existing Survey Coverage and Resource Locations (Confidential)  
Attachment 9. Historic Properties Inventory  
Attachment 10. Unanticipated Discovery Protocol  
Attachment 11. Public Services: Population, Housing, and Transportation Tables  
Attachment 12. Wetlands and Waters Survey Memo  
Attachment 13. Property Owner List

## Table of Contents for Appendices

---

- Appendix A. Notice Criteria Tool Results
- Appendix B\_Cultural Context Map
- Appendix C\_NEER-2020-Energy-Storage
- Appendix D\_Murdock, Gary\_rev
- Appendix E\_Public Services Tables
- Appendix F\_VansycleII\_RAIs\_Noise\_compiled
- Appendix G1\_Siemens Wind Turbine SWT-2.3-108\_EN\_508
- Appendix G2\_siemens-gamesa-onshore-wind-turbine-sg-2-6-114-en
- Appendix G3\_siemens-gamesa-onshore-wind-turbine-sg-2-9-129-en
- Appendix G4\_siemensgamesaonshorewindturbinesg26126e

## **Acronyms and Abbreviations**

AC	alternating current
ASC	Application for Site Certificate
BMPs	best management practices
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DC	direct current
Council or EFSC	Energy Facility Siting Council
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
Facility	Vansycle II Wind Project
Certificate Holder; FPL Stateline	FPL Energy Stateline II, Inc.
FPL Vansycle	FPL Energy Vansycle, LLC
MVA	mega-volt-ampere
MWh	megawatt-hours
MW	megawatt
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NEER	NextEra Energy Resources, LLC
NSR	noise sensitive receptors
O&M	operations and maintenance
OAR	Oregon Administrative Rules
OARRA	Oregon Archaeological Records Remote Access
ODOE	Oregon Department of Energy
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
DOGAMI	Oregon Department of Geology and Mineral Industries
ORS	Oregon Revised Statutes
RPS	Renewable Portfolio Standard
RFA	Request for Amendment
SWP	Stateline Wind Project
UCDC	Umatilla County Development Code
WAGS	Washington ground squirrel
WMMP	Wildlife Monitoring and Mitigation Plan

**Request for Amendment #6  
for the Stateline Wind Project**

---

ZVI

zone of visual influence

## **1.0 Introduction**

### **1.1 Project Summary and Request**

The Stateline Wind Project (SWP) consists of three wind farm developments (phases) in Umatilla County (Figure 1), all of which are operational wind farms: Stateline 1, Stateline 2, and Vansycle II<sup>1</sup>. Per the Final Order on Amendment #4, SWP is divided into two separate parts (Stateline 1 & 2 and Stateline 3) with separate Site Boundaries. The Certificate Holder for Stateline 1 and 2 is FPL Energy Vansycle, LLC (FPL Vansycle), and the Certificate Holder for Vansycle II is FPL Energy Stateline II, Inc. (FPL Stateline), both of which are wholly-owned subsidiaries of NextEra Energy Resources, LLC (NEER).

FPL Stateline (the Certificate Holder) is submitting this Request for Amendment (RFA) 6, to amend the approved turbine specifications, megawatt (MW) output, number of turbines and associated development improvements in consideration of repowering of the Vansycle II Wind Project (Facility) and to add 50 MW of battery storage (proposed changes). RFA 5 approved dimensional changes to the approved turbine dimensions to allow for existing turbine towers to be upgraded/repowered to current technology by replacing the nacelles, hubs, rotors and turbine blades and associated temporary construction impacts<sup>2</sup>. However, since RFA 5's approval, technology has changed and the components planned to be used for the repower are no longer available. Therefore, RFA 6 proposes changes that provide for repowering flexibility to account for various technologies (no changes to the Site Boundary are proposed). To assess for any impacts associated with the proposed changes, the Certificate Holder analyzed several repowering scenarios which include repowering all existing turbines (Base Case) to updated technology (similar to what was approved in RFA 5); but also includes two options for repowering existing turbines with the following exceptions:

- Option A replaces three existing turbines; and
- Option B adds two new turbines and replaces one existing turbine.

Note that the Certificate Holder is not requesting to permit a single or combination of the turbine repowering options, but will comply with the proposed changes to the Site Certificate. This will allow for repowering flexibility in consideration of perpetual technological advances and offering maximum efficiency in terms of use of space, providing development flexibility for potential customers varying market requirements. Thus, the turbine configuration options provide only a representative description of components and accompanying analysis for the maximum level of impact or footprint within the approved Site Boundary, to address the greatest potential impact. In this manner, the Certificate Holder will ensure that the Facility will continue to meet the requirements of the Site Certificate while retaining flexibility for optimal repowering such that

---

<sup>1</sup> Stateline 3 was renamed to Vansycle II Wind Project as a result of Request for Amendment 5 (RFA 5).

<sup>2</sup> Increasing the maximum blade tip height from 416 to 440 feet, rotor diameter from 305 to 354 feet; and decreasing minimum aboveground blade tip clearance from 110 to 85 feet

resources will not experience significant adverse impacts from what has been previously approved by the Oregon Energy Facility Siting Council (EFSC). See Section 3.0 for a detailed description of the proposed changes.

## **1.2 Procedural History**

EFSC issued a Site Certificate for SWP on September 14, 2001. FPL Vansycle began construction of the first phase of the SWP (Stateline 1) on September 17, 2001 and completed construction on December 20, 2001. The first phase of construction (Stateline 1) consists of 126 Vestas V47 660-kilowatt wind turbines with a combined peak electric generating capacity of approximately 83 MW and related facilities. Stateline 1 began commercial operation on December 21, 2001. Since issuance of the Site Certificate, there have been five amendments:

- Amendment #1 – On May 17, 2002, EFSC approved a request by FPL Vansycle for an expansion of the SWP. Amendment #1 authorized a second phase of construction (Stateline 2) consisting of 60 Vestas V47 660-kilowatt wind turbines and related facilities. FPL Vansycle completed construction of these turbines on December 15, 2004. Amendment #1 increased the combined peak generating capacity of the SWP to approximately 123 MW.
- Amendment #2 – On June 6, 2003, EFSC approved a request by FPL Vansycle for a further expansion of the SWP. Amendment #2 authorized a third phase of construction (Stateline 3) consisting of 279 Vestas V47 660-kilowatt wind turbines and related facilities. Amendment #2 included a Site Certificate condition (Condition 106) requiring the Certificate Holder to begin construction of Stateline 3 by June 23, 2005.
- Amendment #3 – On March 28, 2005, FPL Vansycle requested an extension of the deadline to begin construction of Stateline 3. On June 20, 2005, EFSC approved Amendment #3 and extended the deadline to begin construction to June 23, 2007.
- Amendment #4 – On December 22, 2006, FPL Vansycle requested a further extension of the deadline to begin construction of Stateline 3. On April 10, 2007, FPL Vansycle withdrew its RFA #4 before EFSC had taken any action on the amendment request. The deadline to begin construction of Stateline 3 expired on June 23, 2007. On October 24, 2008, FPL Vansycle and FPL Stateline2 submitted their Revised Application for a Fourth Amended Site Certificate, including a Request for Partial Transfer of the Site Certificate as It Pertains to Stateline 3 (Revised RFA #4). On March 27, 2009, EFSC issued the Fourth Amended Site Certificate for SWP. Construction began on June 9, 2009. Stateline 3 became operational on December 16, 2009.
- Amendment #5 – On January 8, 2019, FPL Vansycle requested to change the name of the Facility from Stateline 3 to Vansycle II Wind Project, repower existing turbines (replacement of nacelles, rotors, hubs and blades) and redevelop to the extent necessary, previously approved temporary laydown areas and temporary access road improvements. The repowering increased the blade lengths from 148 feet to 177 feet, increase the rotor diameter from 305 feet to 354 feet, increased the total height from 416 feet to 440 feet, and

decreased the minimum ground clearance from 111 feet to 85 feet. On May 17, 2019, EFSC approved Amendment #5.

### **1.3 Amendment Required under OAR 345-027-0350 and Review Process under OAR 345-027-0351**

*Except for changes allowed under OAR 345-027-0353 of this rule, an amendment to a site certificate is required to:*

- (1) Transfer ownership of the facility or the certificate holder as described in OAR 345-027-0400;*
- (2) Apply later-adopted law(s) as described in OAR 345-027-0390;*
- (3) Extend the construction beginning or completion deadline as described in OAR 345-027-0385;*
- (4) Design, construct or operate a facility in a manner different from the description in the site certificate, if the proposed change:
  - (a) Could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact affects a resource or interest protected by an applicable law or Council standard;*
  - (b) Could impair the certificate holder's ability to comply with a site certificate condition; or*
  - (c) Could require a new condition or a change to a condition in the site certificate.**

The changes the Certificate Holder proposes require a Site Certificate amendment under Oregon Administrative Rules (OAR) 345-027-0350(4)(c) because it will require changes to conditions in the Site Certificate. Specifically, an amendment is required because the total blade tip height will be increased from 440 feet to up to 499 feet and the hub height will be increased from 263 feet to up to 295 feet, which will require a change to Condition 37(c). Additionally, the permitted number of turbines is proposed to be increased from 43 to up to 45. No new conditions will be required for the RFA 6 Facility modifications. Note that no changes to Site Certificate conditions are proposed as a result of adding battery storage, though battery storage will be added as a related or supporting facility (see Attachment 1 for the SWP Red-lined Site Certificate). The modifications proposed in RFA 6 do not alter the Certificate Holder's ability to comply with EFSC's earlier findings in the Final Order on Amendment #5 as documented in this RFA. In addition, the Facility is already in operation and there will be no changes to the Site Boundary; RFA 6 proposes replacing nacelles, hubs, rotors and turbine blades on existing turbine towers, potentially adding or replacing turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine), in previously approved turbine locations (depending on the repower configuration chosen, see Section 3.0), and adding 50 MW of battery storage within the approved Site Boundary. Therefore, the proposed changes will not result in a significant adverse impact to a resource or

interest protected by an applicable law or Council standard that the Council has not addressed in an earlier order.

*OAR 345-027-0357(8) In determining whether a request for amendment justifies review under the type B review process described in 345-027-0351(3), the Department and the Council may consider factors including but not limited to:*

As noted above, the proposed changes will not alter the Site Boundary and there will be no substantive changes to site certificate conditions other than necessary to facilitate the repowering. The record for the Facility, the findings of fact, reasoning and conclusions of law underlying the terms and conditions of the site certificate, has been repeatably reviewed since issuance of the Site Certificate in 2001 (RFA 1, RFA 2, RFA 3, RFA 4, and RFA 5). For these reasons, and the fact that the Council has previously applied the Type B process to similar amendment requests,<sup>3</sup> the Type B review process is the appropriate amendment review process for this request. Therefore, RFA 6 also serves as an Amendment Determination Request pursuant to OAR 345-027-0357(3) to provide the justification documentation that the Type B review process is the appropriate process for the proposed changes. Accordingly, the following analysis of OAR 345-027-0357(8) addresses the evaluation criteria for the Type B process further substantiated by the information provided in the entirety of RFA 6 which also provides the required information for an Amendment Determination Request pursuant to OAR 345-027-0357(4).

*OAR 345-027-0357(8)(a) The complexity of the proposed change;*

The purpose of RFA 6 is to add battery storage and repower, as part of operations and maintenance (O&M) to an existing, operational wind farm on existing turbine structures, as well potentially add or replace turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0). There will be no changes to the Site Boundary. RFA 6 proposes to add 50 MW of battery storage, to be collocated with the existing Facility substation on agricultural land. RFA 6 also proposes to switch out the nacelles, hubs, and rotors (including blades) for new nacelles, hubs and rotors – the repower, addition, or replacement of turbines will be sited within previously approved turbine locations (see Section 3.0). In general, a majority of the changes proposed by RFA 6 are simple maintenance and operational projects to an already developed Facility.

The addition of 50 MW of battery storage is small in nature and will be collocated with the existing substation upon previously impacted construction areas.

RFA 6 proposes only a 59-foot total turbine height increase with a total height of 499 feet. There are several other site certificates with approved turbine heights higher than 499 feet (e.g., Wheatridge Renewable Energy Facility I, Golden Hills Wind Project, Summit Ridge Wind Farm, Montague Wind Power Facility, and Summit Ridge Wind Farm). Although replacing the blades will also lower the blade tip clearance by up to 26 feet to 59 feet, similar to turbine total height, there are several approved wind facilities with lower blade tip clearance (e.g., Wheatridge Renewable Energy Facility

---

<sup>3</sup> Energy Facility Siting Council of the State of Oregon, Final Order on Request for Amendment 5, May 17, 2019.

I, Golden Hills Wind Project, Summit Ridge Wind Farm, Montague Wind Power Facility, and Summit Ridge Wind Farm; see Table 1).

**Table 1. Wind Turbine Specifications for Approved Wind Projects and Vansycle II (Proposed)**

Specification	Wheatridge	Golden Hills	Summit Ridge	Montague	Vansycle II (Proposed)
Individual Turbine Generating Capacity (MW)	1.7	3.2	2.7	3.6	2.66
Maximum Blade Length in feet (meters)	204 (62)	246 (75)	200 (61)	164 (50)	213 (65)*
Maximum Hub Height in feet (meters)	291 (89)	404 (123)	299 (91)	328 (100)	295 (90)*
Maximum Rotor Diameter (Rotor Swept Height) in feet (meters)	417 (127)	492 (150)	400 (122)	328 (100)	426 (129)
Maximum Total Height (tower height plus blade length) in feet (meters)	500 (152)	650 (198)	499 (152)	492 (150)	499 (153)
Minimum Ground Clearance in feet (meters)	71 (22)	45 (14)	59 (18)	45 (14)	59 (18)

\*These maximum dimensions are representative only and ultimately are confined within the maximum rotor diameter and maximum total height specifications.

Based on review of RFA 6, the Oregon Department of Energy (ODOE) may determine that there will be no visual impact from the battery storage, minor change in total turbine height (from 440 to 499 feet) as a result of repowering, or potential addition/replacement of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0) compared to EFSC's previous analysis for the Recreation, Scenic Resources, Protected Areas, and Historic, Cultural and Archeological Resources Standards. Similarly, ODOE may determine that there will be no change to accepted farm practices and cost of farm practices under the Land Use standard because the Facility Site Boundary will not change from what was previously approved and the Facility has been operational for almost 10 years. There are no airports or airfields that will be affected by the modified turbines because they are all at a distance where they do not affect airport operations.

Turbine manufacturers and the Certificate Holder undertake significant measures to ensure blade safety to minimize risk and liability. Modifying the existing turbines nor adding/replacing turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0) will not impact the Certificate Holder's ability to operate the turbines. It is not yet known whether current foundations have sufficient capacity to support the incremental increase in weight associated with the repowered turbine and this foundation design will be applied to the potential new turbine foundations (see Section 3.0 and 6.1.3). The Facility is located in a rural area entirely on private property which restricts public access to the turbine and

other Facility component locations. To summarize, although replacing the nacelle, hub and rotors on existing turbines will increase the total turbine height and lower the ground clearance, and adding battery storage and potentially adding/replacing turbines will add Facility infrastructure (see Section 3.0), the resulting battery storage and turbine configuration will remain benign compared to other turbines and wind projects approved by EFSC in northeastern Oregon.

*OAR 345-027-0357(8)(b) The anticipated level of public interest in the proposed change;*

There will be no change to the overall operation of the Facility. The height of the turbines will increase due to the new turbine blades, but the blades will be placed on the existing towers. Moreover, because they are existing, operational turbines, the height difference between the existing turbines and the modified turbines will be generally imperceptible by the public. Similarly, the potential addition/replacement of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0) will be generally indiscernible from the existing turbines and will be sited in previously approved turbine locations. The battery storage will be collocated with the existing Facility substation and will generally be indiscernible compared to the much taller Facility turbines. The addition of battery storage and repowering for operation and maintenance activities will generally be the same as other activities and in a rural unpopulated area where there many existing windfarms. The Certificate Holder has coordinated with landowners in advance of RFA 6.

*OAR 345-027-0357(8)(c) The anticipated level of interest by reviewing agencies;*

As part of RFA 6, the Certificate Holder will coordinate with reviewing agencies, as applicable, and has incorporated any findings into the RFA. The Certificate Holder has coordinated with Umatilla County, the Department of Defense regarding airspace, and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Coordination with the Oregon Department of Fish and Wildlife (ODFW) has occurred for Washington ground squirrels (WAGS). Protocol-level WAGS surveys were completed in May 2018 and April/May 2021 and no WAGS active colonies, sign, or potential burrows were identified. Because this is an existing wind farm, total height increases are minor and the addition of battery storage and potential addition/replacement of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0) within previously impacted construction areas and/or approved turbine locations are not likely to peak public interest. Additionally, there will be no changes to the previously approved Site Boundary. Therefore, the Certificate Holder anticipates the level of agency interest to be low.

*OAR 345-027-0357(8)(d) The likelihood of significant adverse impact; and*

RFA 6 is an addition of battery storage and repowering of the Facility for O&M purposes at an existing, operational wind farm. There will not be any changes to the Site Boundary. Temporary ground disturbance will be in areas that were temporarily developed during initial construction and, consistent with the conditions of the Site Certificate, these areas will be graded and reseeded to wheat or native grasses as necessary to restore the areas to their pre-construction condition. Changes to total turbine dimensions are minor in scale. The addition of battery storage and the potential addition/replacement of turbines (Option A replaces three existing turbines and Option B

adds two new turbines and replaces one existing turbine; see Section 3.0) will cause permanent impacts where new foundations are sited. However, those impacts will occur in previously impacted construction areas and/or approved turbine locations within the previously approved Site Boundary. Any temporary ground disturbance that occurs as a result will be developed and restored similarly to other repower temporarily impacted areas. Therefore, there is little likelihood of significant, adverse impact.

*OAR 345-027-0357(8)(e) The type and amount of mitigation, if any.*

The addition of battery storage and potential addition/replacement of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.0) will cause permanent impacts where new foundations are sited. However, those impacts will occur in previously impacted construction areas and/or approved turbine locations within the previously approved Site Boundary. Any temporary ground disturbance that occurs as a result will be developed and restored similarly to other repower temporarily impacted areas. Therefore, the Certificate Holder does not anticipate substantial, if any, changes to existing mitigation plans.

## **2.0 Certificate Holder Information – OAR 345-027-0360(1)(a)**

*OAR 345-027-0360(1) To request an amendment to the Site Certificate required by OAR 345-027-0350(3) and (4), the certificate holder shall submit a written preliminary request for amendment to the Department of Energy that includes the following:*

*OAR 345-027-0360(1)(a) The name of the facility, the name and mailing address of the certificate holder, and the name, mailing address, email address and phone number of the individual responsible for submitting the request.*

### **2.1 Name of the Facility**

The name of the Facility is Vansycle II Wind Project and the Certificate Holder is FPL Energy Stateline II, Inc.<sup>4</sup>

### **2.2 Name and Mailing Address of the Certificate Holder**

David Lawlor  
FPL Energy Stateline II, Inc.  
FEW/JB  
700 Universe Blvd.  
Juno Beach, FL 33408  
David.Lawlor@nexteraenergy.com

---

<sup>4</sup> Stateline Wind Project.

### **2.3 Current Parent Company of Certificate Holder**

NextEra Energy Resources, LLC

FEW/JB

700 Universe Blvd

Juno Beach, FL 33408

#### **Contact Name, Mailing Address, Email Address, and Telephone Number:**

Chris Powers

Senior Project Manager

NextEra Energy Resources, LLC

700 Universe Boulevard

Juno Beach, FL 33408

(760) 522-7563

Christopher.Powers@nextereaenergy.com

### **2.4 Name and Mailing Address of the Individuals Responsible for Submitting the Request**

David Lawlor

Director of Development

NextEra Energy Resources, LLC

FEW/JB

700 Universe Blvd

Juno Beach, FL 33408

David.Lawlor@nextereaenergy.com

(403) 689-6285

## **3.0 Detailed Description of the Proposed Change - OAR 345-027-0360(1)(b)**

*OAR 345-027-0360(1)(b) A detailed description of the proposed change, including:*

### **3.1 Repowering**

The purpose of the repowering is for operational and maintenance improvements to take advantage of technological advancements to optimize consistent energy output. The Certificate Holder presents three repower scenarios to convey the requested design flexibility for repowering the Facility. As stated above, the Certificate Holder requests flexibility in permitting a single or combination of turbine repowering options within the approved Site Boundary to allow for optimal

repowering flexibility (see Table 2, Turbine Specifications Existing and Proposed). The Base Case includes repowering the existing Siemens turbines to 2.66-129 (hub height up to 90 meters) wind turbine models, although there are two other design options:

- **Option A:** Turbine IDs 11, 12, and 13 will be converted to General Electric (GE) 2.3-116 (hub height up to 90 meters) and the remaining 40 turbines will be repowered as Siemens 2.66-129 (hub height up to 90 meters); and
- **Option B:** Addition of two new GE turbines (at previously approved ALT-1 and ALT-2 turbine locations) and conversion of existing Turbine ID 11 to GE 2.3-116 (hub height up to 90 meters), and repowering of 42 turbines to Siemens 2.66-129 (hub height up to 90 meters) wind turbine models.

**Table 2. Turbine Specifications Existing and Proposed**

<b>Specification</b>	<b>Existing</b>	<b>Proposed</b>
Maximum Individual Turbine Generating Capacity (MW)	2.3	2.66
Maximum Blade Length in feet (meters)	177 (54)	213 (65)*
Hub Height in feet (meters)	262.5 (80)	295 (90)*
Rotor Diameter (Rotor Swept Height) in feet (meters)	354 (108)	426 (129)
Total Height (tower height plus blade length) in feet (meters)	440 (134)	499 (153)
Minimum Ground Clearance in feet (meters)	85 (26)	59 (18)
Maximum Number of Turbines	43	45

\*These maximum dimensions are representative only and ultimately are confined within the maximum rotor diameter and maximum total height specifications.

Repowering will generally consist of replacing existing nacelles, hubs and rotors, including blades for a new maximum blade tip height of approximately 499 feet (the Facility is currently permitted for a maximum height of 440 feet) on the existing turbine towers. Options A and B will include the addition of new foundations, towers, and power units.

Repowering activities as part of O&M of the Facility will be entirely within the existing Site Boundary and will utilize existing facilities and infrastructure to the extent practicable. The general sequence to replace the components is as follows:

1. Temporary improvements made to access roads and turbine work area as necessary.
2. Foundation modifications completed, if required (see Section 6.1.3).
3. A track mounted crane mobilizes to a turbine and sets up on the access road adjacent to the turbine.
4. A truck delivers the new gearbox or generator and stages on the road.

5. The crane lowers rotor and sets it on the right or left side of the crane.
6. The crane lowers old gearbox and sets it on the road temporarily or on the same trailer as the new gearbox.
7. The crane lifts the new gearbox into place.
8. Trucks deliver the new blades and hub to the turbine pad using the gravel access road.
9. Either a boom truck or telehandler unloads the turbine blades and hub, and assembles them into a complete rotor on the turbine pad. Trucks leave after unloading.
10. The crane picks and sets the new rotor.
11. The crane leaves.
12. Either a boom truck or telehandler disassembles the old rotor and loads the blades and hub onto trucks which are staged on the access road.
13. Materials are transported off site for proper disposal at a licensed disposal facility (blades) or recycling (blades) and/or reuse (gear oils and gearbox components).
14. The crane mobilizes to the next turbine and the process repeats.

Technology replacement and addition of turbines (as proposed for repowering configurations Options A and B) will follow similar steps except the following steps will be added after the crane mobilizes to a turbine and sets up but prior to installation of the gearbox or generator and stage:

1. Excavator and backhoes to remove existing foundations (as applicable), level ground and remove soil for foundations. Equipment leaves after foundation preparation.
2. Concrete truck to pour concrete pad and footing. Concrete truck leaves after pour.
3. Trucks deliver the turbine tower in pieces to the adjacent laydown area. Trucks leave after unloading.
4. Turbine tower is assembled.
5. The crane lifts turbine tower into place in foundation and footing.

Replacement of Turbine 11 (as proposed by repowering configuration Option B) will occur in the reverse order.

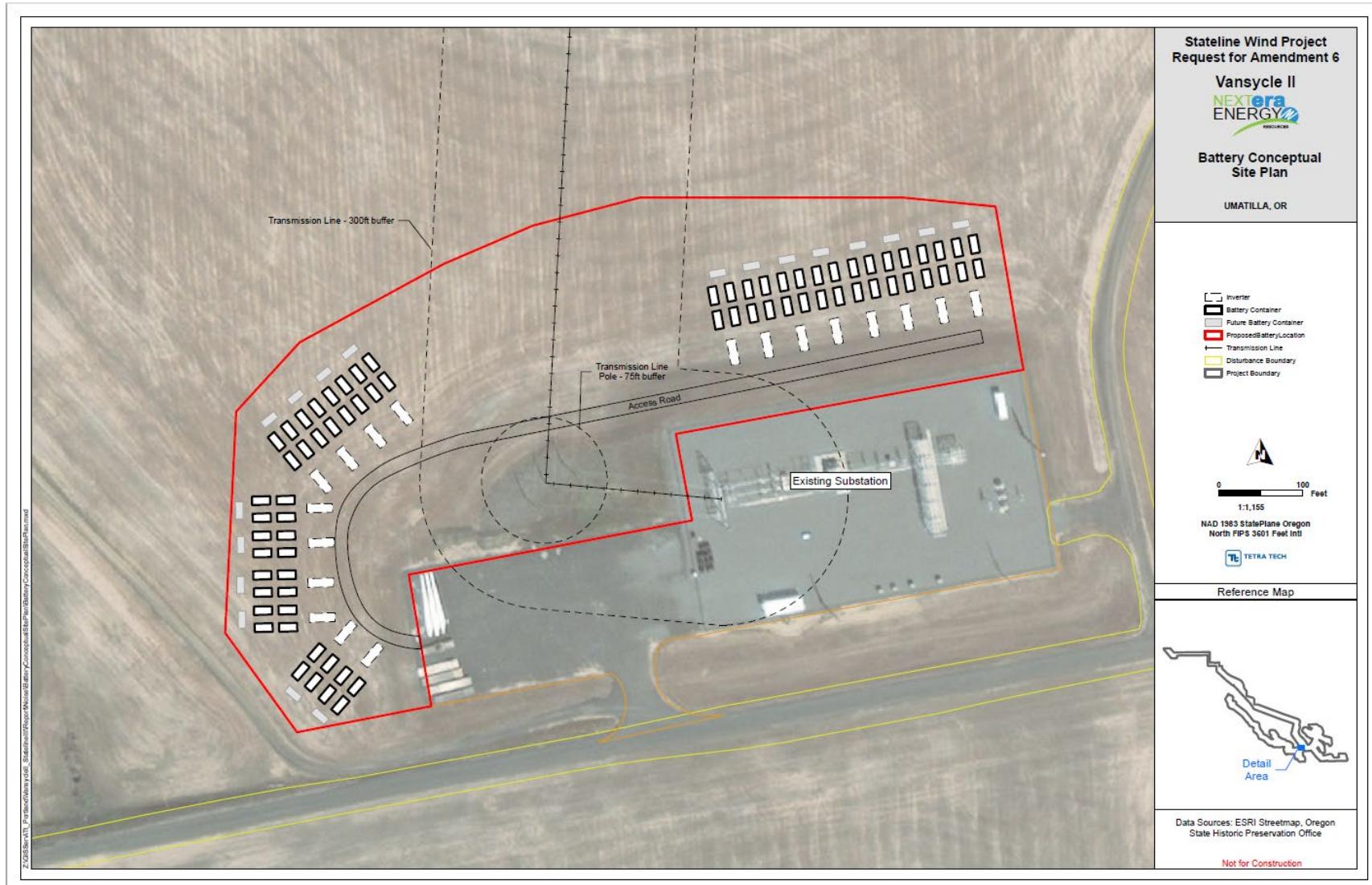
- Previously approved temporary laydown areas (entirely in previously disturbed area) will be redeveloped to the extent necessary. During repowering, a temporary laydown or staging area will be required at each new and existing tower location (depending on the repowering option selected; approximately 350-foot impact area around each turbine), and a staging area will be required for temporary equipment storage and parking. The equipment storage staging area will be a 20-acre Facility siting area that was used during construction of the Facility across from the road from the substation. This area is located on agricultural land. This staging area will be where the turbine blades and other materials will be temporarily stored during construction. This staging area also will be used for parking

construction vehicles, construction employees' personal vehicles, and other construction equipment (see Figure 2). In addition, each tower location will have a temporary cleared area for rotor and turbine assembly approximately 122,499 square feet in size.

- Previously approved temporary access road improvements (entirely in previously disturbed areas) will be redeveloped to the extent necessary. Approximately 15.7 miles of existing, 16-foot wide access roads will be temporarily widened to 32 feet wide with an additional 3 feet of shoulder on each side (38 feet total). The temporary widened areas will be reclaimed after use according to the Revegetation Plan. With the possible exception of new gravel, as needed, no improvements that will result in land disturbing activities will be made to existing County roads. Note that to access the alternative turbine locations (per repowering configuration Option B), approximately 0.44 miles of new road will be created. See impact table below for further detail. Note that the crane paths will follow these improved and new roads.

### **3.2 Battery Storage**

RFA 6 also proposes to add 50 MW of battery storage within the Site Boundary, directly north of the approved and existing Facility substation. The total area of the battery storage site will be approximately 11 acres. Figure 2 shows the location of the battery storage relative to the existing Facility substation. See Graphic 1 for a conceptual site plan of the 50-MW battery energy storage system, as well as connection into the substation and control house.



Graphic 1. Typical 50-MW Battery Energy Storage System Conceptual Site Plan

A battery storage system operates in the following ways:

- A battery management system monitors the individual cells and controls the voltage, temperature, and current for safe, reliable transfer of energy. The system automatically shuts off if the batteries are operating outside of predefined parameters.
- A computerized monitoring system provides up-to-date weather forecasts, power prices, historical electrical use, the amount of charge remaining in the batteries and when to use the energy storage system.
- Energy from the power grid or from renewable energy sources is delivered via a bidirectional inverter, which converts the energy from alternating current (AC) into direct current (DC). Today's batteries can only store DC. This energy goes into an array of batteries that is typically housed within a battery container or a building structure.
- When the energy is needed on the power system, the inverters are then used again, but this time to convert the DC from the batteries into AC. Once the power has been transformed, it is stepped up in voltage and subsequently sent to an on-site substation or directly to a distribution or transmission line.
- The electricity is then distributed to homes, schools, businesses and other consumers.

The battery storage site will consist of lithium-ion batteries in a series of modular unoccupied containers, as described in more detail below:

- Approximately 72 containers total, each approximately 20 feet in length by 9 feet in width.
- Approximately 18 inverters (four containers per inverter) with associated step up transformers, each having a combined skid footprint approximately 30 feet by 10 feet and power ratings for 3.43 mega-volt-ampere (MVA) and 3.55 MVA, respectively.
- Interconnection facilities including a control house, protective device, and power transformer. The actual design of energy storage, inverters and batteries may change, but the estimated permanent footprint will not exceed 11 acres. Battery containers and inverter skids will either be placed on an engineered grade or on poured concrete foundations or utilize steel piles, depending on site conditions and Umatilla County Building Department requirements. Battery and inverter equipment will be electrically connected via a combination of above ground cable trays, underground conduit, direct-buried cable and/or covered cable trenches. Site surfacing will remain primarily gravel.
- Utilize existing control house for communication equipment.
- Each container within the battery storage system will have its own skid-mounted power transformer and bi-directional inverter as shown in Graphic 1. The bi-directional inverter allows energy to flow in or out of the battery to provide charge and discharge. Power switches and relays will protect the system. No emergency generator or backup power system will be provided, however local distribution could be used as a backup auxiliary source.

- Cooling units will be placed either on top of the building enclosure or containers or along the side.

O&M activities will remain the same as previously described with the exception of battery energy storage maintenance activities described below in Section 6.0. Site Certificate Conditions imposed on the Facility will apply to the energy storage site and no new conditions are needed to comply with the standards.

### **3.3 Effect of Proposed Changes on the Facility - OAR 345-027-0360(1)(b)(A)**

*OAR 345-027-0360(1)(b)(A) a description of how the proposed change affects the facility,*

The purpose of RFA 6 is to take advantage of technological developments to optimize consistent energy output and storage as part of overall Facility O&M. ODOE has reviewed other facilities for the purposes of repowering, reaffirming that replacing rotors and nacelles are typical to industry activities as part of O&M.

The battery storage system will support the Facility's energy supply to the regional grid by stabilizing the wind energy resource to allow for better control of the Facility's energy distribution in response to market and customer demands. Battery or more generally energy storage allows for energy generated from a wind facility to be stored as available, and later deployed as needed, providing greater consistency of energy supply and the opportunity to respond to market demands. Energy storage can balance load on the power system grid by moving energy when demands are low to times when demands are high. The technology also allows for a seamless switch between power sources and protects equipment by controlling voltage and frequency. Energy storage also fills in the gaps resulting from intermittent resources like wind and solar generation. That means operators can more easily bring on and off renewable energy, reducing the need for load balancing services and rapid generation ramping. By reducing the load on congested transmission and distribution systems, energy storage may defer expensive upgrades. In some cases, storage may also reduce new investment in conventional resources, such as adding generating plants to meet systemwide peak load.

The proposed changes will not change how the Facility is operated as previously approved by EFSC. There will be no new structures or permanent ground development for a majority of the repowering proposed, mostly alteration of existing structures. The potential addition and replacement of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.1) and addition of battery storage will create new structures, but these changes will be located at previously disturbed construction areas and approved turbine locations. There also will be no change to the previously approved Site Boundary. RFA 6 will extend the useful life of the Facility by approximately 10 years (the Facility began operation in 2009 and was expected to have a 30-year useful life). Ultimately, the proposed changes will maximize the use of current technology, while supporting renewable energy production in the region.

### **3.4 Applicable Laws and Council Rules - OAR 345-027-0360(1)(b)(B)**

*OAR 345-027-0360(1)(b)(B) a description of how the proposed change affects those resources or interests protected by applicable laws and Council standards, and*

There has been no change to local, state, or federal law that will prohibit the changes requested in RFA 6. Compliance with applicable laws is integrated into the Site Certificate conditions, including conditions related to noise analysis, the National Pollutant Discharge Elimination System (NPDES) 1200-C permit, consultation with ODFW, among others. Although, minor changes to Site Certificate conditions are being requested, RFA 6 can still comply with the purpose or intent of all Site Certificate conditions. In general, the proposed changes do not affect the resources or interests protected by applicable laws and EFSC standards in a substantially different way than approved by EFSC. The Facility is operational, and the Site Boundary of the Facility will not be changed from what was previously approved; therefore, there are no new areas that will need to be considered that were not previously evaluated. Other than the change in turbine dimensions, addition of battery storage, and potential replacement/addition of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine; see Section 3.1), RFA 6 will be operated in the same manner as already approved by EFSC and as documented through annual reporting that has been completed since the Facility was operational in 2009. Sections 4.0 and 6.0, demonstrate how the proposed changes are consistent with EFSC's previous findings.

### **3.5 Location of the Proposed Change - OAR 345-027-0060(1)(b)(C)**

*OAR 345-027-0360(1)(b)(C) the specific location of the proposed change, and any updated maps and/or geospatial data layers relevant to the proposed change.*

Figure 1 shows the Facility location, while Figure 2 shows the as-built Facility layout. Anticipated permanent and temporary impacts are detailed in Table 3 and Figure 3.

**Table 3. Estimated Maximum Permanent and Temporary Impacts**

Feature	Unit	Dimensions	Quantity	Acres <sup>1</sup>
<b>Permanent Impacts</b>				
Potential New Turbine Foundations	Acres	0.04	5	0.2
Battery Storage	Acres	11	1	11
New Access Road (to reach ALT-1 and ALT-2)	Width (feet)	16	0.44 miles	0.9
<b>Total</b>				<b>12.1</b>
<b>Temporary Impacts</b>				
Staging Area	Acres	20	1	20
Rotor Assembly Area <sup>2,3</sup>	Square feet	122,499	45 (max)	126.5
Road Widening and Crane Paths	Width (feet)	23	15.7 miles	65.2
<b>Total</b>				<b>211.7</b>
<p>1. Impact quantities present the maximum disturbance for repowering considering options.</p> <p>2. A typical spread-footing foundation consists of a reinforced concrete pad, approximately 85 feet in diameter, extending to approximately 12 feet below grade. The center of the foundation will be approximately 6 feet thick, tapering to approximately 3 feet thick at the outer edges. A pedestal, upon which the turbine tower is mounted, projects from the center of the footing to above ground level. Note that these concrete areas are considered to cause temporary impacts and are thus included in Table 3 as part of the temporary 'Rotor Assembly Area' impacts.</p> <p>3. Rotor Assembly Area acreages include existing permanent facilities (existing roads and pads); therefore the temporary disturbance is overestimated. Note that this impact estimate is comprehensive and inclusive of all repowered, replacement, and new turbines.</p>				

## **4.0 Division 21 Requirements – OAR 345-027-0060(1)(c)**

*OAR 345-027-0360(1)(c) References to any specific Division 21 information that may be required for the Department to make its findings.*

References to specific Division 21 information are included in this section containing the information required under OAR 34-021-0010 to address the applicable Division 22 standards and other laws as shown in Section 6.

### **4.1 Required Permits – OAR 345-021-0010(1)(e)**

Exhibit E of RFA 5 identified the federal, state, and local government permits related to the siting of the Facility, which were incorporated into Site Certificate conditions as necessary. The proposed changes do not require any new permits, nor any new Site Certificate conditions for permits, which were not previously considered by the Council.

### **4.2 Materials Analysis – OAR 345-021-0010(1)(f)**

Construction materials for the repowering will generally be the same as those approved for construction of the Facility as previously approved by the Council. In general, the proposed repowering will not exceed the amount of solid waste and wastewater generated by the Facility previously, and will not modify the procedures and practices used for handling these materials.

The battery storage site (50 MW) will use materials previously identified in Exhibit G of RFA 5 and typical to construction (i.e., steel, concrete, gravel). Quantities of these materials will be small in comparison to the quantities previously estimated for the entire Facility. The energy storage sites also will use new materials consisting of the lithium-ion batteries. The following materials are anticipated:

- Steel Containers - The amount of steel will vary depending on the type and configuration of the energy storage system.
- Steel piles – The amount of steel piles for foundations will vary depending on the type and configuration of the energy storage system. Concrete foundations are not likely.
- Water – Constructing the energy storage facility will require approximately 12,500 gallons of water. The water source will remain the same as previously described.
- Gravel - A maximum of 7.2 acres of the energy storage area will be graveled to a depth of 6 inches, using approximately 4,160 tons of gravel. The gravel source will remain the same as previously described.
- Batteries - Lithium-ion system will require regular change out of batteries as they degrade over time at a rate depending on usage. For example, a battery that is cycled or used more often will degrade faster than one that is used less often. It is assumed that conservatively the battery will need to be replaced every 15-20 years, or 1-2 times over the life of the Facility (30 years). At the time of initial operation the total number of containers (as proposed in Section 3.2) may not be required and additional containers may be augmented within the battery site footprint over the life of the Facility as the initially installed batteries degrade over time.

For the replacement of batteries during operation, the certificate holder will follow the handling guidelines of 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration related to the shipment of lithium-ion batteries. The regulations, among other thing, include requirements for the:

- Prevention of a dangerous evolution of heat;
- Prevention of short circuits;
- Prevention of damage to the terminals; and
- Prevention of contact with other batteries or conductive materials.

Licensed third party battery suppliers will be responsible for transporting batteries to and from the Facility in accordance with applicable regulations, as required through their licensure. Spent batteries will be disposed at a facility permitted to handle them in compliance with applicable Resource Conservation and Recovery Act and Toxic Substances Control Act regulations administered by the U.S. Environmental Protection Agency or the Oregon Department of Environmental Quality (ODEQ). Adherence to the requirements and regulations (including personnel training, safe interim storage, and segregation from other potential waste streams)

minimizes the potential for safety hazards related to the transport, use, or disposal of batteries. The Chemical Waste Management facility in Arlington, Oregon (“Arlington Landfill”) holds a permit under the Resource Conservation and Recovery Act Part B as well as the Toxic Substances Control Act. The landfill, which is regulated by EPA Region X and the ODEQ, is licensed to handle hazardous materials, including transportation and disposal of hazardous wastes. See Attachment 2 for a fact sheet describing the Arlington Landfill’s chemical waste disposal capabilities.

The respective certificate holders will continue to comply with Site Certificate conditions related to materials and waste management.

#### **4.3 Other Participants – OAR 345-021-0010(1)(a)**

The Certificate Holder’s information, including contact information, is included in Section 2. FPL Stateline is a wholly-owned indirect subsidiary of NEER. The full name and address of NEER is provided in Section 2.

No other participants are anticipated at this time, with the exception of potential third party permits that will be obtained by the construction firm selected to install battery storage and repower the Facility. The Certificate Holder anticipates that these third-party permits may include permits for obtaining aggregate and other construction materials, transporting materials to the site, and other building- related permits that are typically obtained immediately prior to construction activities. Licensed third party battery suppliers will be responsible for transporting batteries to and from the Facility in accordance with applicable regulations, as required through their licensure. Spent batteries will be disposed at a facility permitted to handle them in compliance with applicable Resource Conservation and Recovery Act and Toxic Substances Control Act regulations administered by EPA or ODEQ. This said, based on its team’s vast experience and the parent company’s portfolio as one of the largest provider of renewable energy in the world, the Certificate Holder will select qualified contractors, engineers, and manufacturers with experience in the wind industry. The Certificate Holder anticipates that these permits will meet the Facility standards adopted by EFSC.

The Certificate Holder and its parent company have extensive relationships with all the major wind turbine manufacturers, as well as with the chief balance-of-plant contractors in the United States. The Certificate Holder has also relied on the input of external consultants with decades of relevant experience developing successful wind energy facilities in the Pacific Northwest.

#### **4.4 Construction Schedule – OAR 345-021-0010(1)(b)(F)**

Battery storage installation and repowering is planned to begin in March 2022 (mobilization) and continue through December 2022. No other construction work is anticipated to begin prior to issuance of the Amendment.

## 5.0 Site Certificate Revisions – OAR 345-027-0360(1)(d)

*OAR 345-027-0360(1)(d) The specific language of the site certificate, including conditions, that the certificate holder proposes to change, add or delete through the amendment.*

Attachment 1 includes the SWP Red-lined Site Certificate to reflect proposed changes. In addition to adding battery storage in Section III (2), the proposed changes include:

- Alteration of Condition 37: change maximum hub height from 263 to 295 feet.
- Alteration of Condition 93: change reference from Fifth Amended Site Certificate to Sixth Amended Site Certificate.
- Remove original Condition 141.
- Alteration of Conditions 137 through 147 (sans original Condition 141): change references as appropriate from the Fifth Amended Site Certificate/RFA5 to the Sixth Amended Site Certificate/RFA 6. Also update Conditions 137, 140, and 141 (revised), to include updated turbine related details and design conditions (Table 4). Note that Conditions 137-147 and the conditions identified with [AMD5] in the site certificate are the only conditions that apply to the Facility modifications from prior to construction to prior to operation (see Attachment 1).

**Table 4. Proposed Turbine Updates**

Update	Approved	Proposed
Maximum Individual Turbine Generating Capacity (MW)	2.3	2.66
Maximum Blade Length in feet (meters)	177 (54)	213 (65) *
Maximum Hub Height in feet (meters)	262.5 (80)	295 (90)*
Maximum Rotor Diameter (Rotor Swept Height) in feet (meters)	354 (108)	426 (129)
Maximum Total Height (tower height plus blade length) in feet (meters)	440 (134)	499 (153)
Minimum Ground Clearance in feet (meters)	85 (26)	59 (18)
Maximum Number of Turbines	43	45
Maximum Total Turbine Nameplate Capacity	98.9 MW	118.68 MW

\*These maximum dimensions are representative only and ultimately are confined within the maximum rotor diameter and maximum total height specifications.

## 6.0 Other Standards and Permits – OAR 345-027-0360(1)(e)

*OAR 345-027-0360(1)(e) A list of all Council standards and other laws, including statutes, rules and ordinances, applicable to the proposed change, and an analysis of whether the facility, with the proposed change, would comply with those applicable laws and Council*

*standards. For the purpose of this rule, a law or Council standard is “applicable” if the Council would apply or consider the law or Council standard under OAR 345-027-0375(2).*

A list of statutes, administrative rules, and local government ordinances relevant to Site Certificate issuance for the facility was provided in Exhibit CC of RFA 5. No additional statutes, rules, or ordinances need to be added based on inclusion of the energy storage facility. The Oregon Community Right to Know Act was inadvertently omitted from Exhibit CC but should have been included (ORS 453; OAR Chapter 837, Divisions 85 and 95). The Oregon Fire Code division of Chapter 837 was included in Exhibit CC (OAR Chapter 837, Division 40) as it is applicable to the facility as a whole, including energy storage. Oregon Public Utility Commission requirements are addressed in Site Certificate Conditions 6, 108, 110, and 113 (OAR Chapter 860, Division 024). These requirements address safety standards for the transmission line as well as related or supporting facilities including the energy storage component. No new requirements are triggered by the inclusion of energy storage.

EFSC standards relevant to RFA 6 include Division 22 (General Standards for Siting Facilities) and Division 24 (Specific Standards for Siting Facilities). Division 23, which applies to non-generating facilities, does not apply to wind power generating facilities. Similarly, inapplicable provisions of Division 24 (e.g., standards applicable to gas plants, gas storage, non-generating facilities) are not discussed.

The modifications proposed to the operational Facility do not alter the Certificate Holder’s ability to comply with EFSC’s earlier findings in the Final Order on Amendment #5. The primary purpose of RFA 6 is to take advantage of technological advances in energy storage and optimization of wind harvesting efficiency as part of typical operational and maintenance activities for the Facility. The Site Boundary will not be changed from what was previously approved. Ultimately, the Facility will be operated in the same manner as previously approved by EFSC which imposed conditions, as necessary, for Facility operations.

Table 5 identifies EFSC standards and other laws reviewed as part of RFA 6, their applicability to RFA 6, and the Site Certificate conditions that govern Facility compliance for each standard. The Facility will comply with all existing Site Certificate conditions, as applicable, except for the conditions noted in Section 5. Site Certificate compliance will continue to be documented through the annual compliance report<sup>5</sup>. Preconstruction and construction compliance conditions specific to the proposed changes are in Section X of Attachment 1, the SWP Red-lined Site Certificate. Section 6.1 contains the information necessary for EFSC to find that the Facility, as modified by RFA 6, meets the standards of the relevant laws.

---

<sup>5</sup> Note, the Stateline Wind Farm Project Site Certificate includes Stateline 1 and 2.

**Table 5. Standards and Laws Relevant to Proposed Amendment**

Standard	Applicability & Compliance	Related Site Certificate Conditions
OAR 345-022-0000 General Standard of Review	<p>The Council previously found that the Facility complies with the General Standard of Review. For RFA 6, the requirements of OAR 345-022-0000 are addressed in the findings, analysis, and conclusions discussed in Section 6.1.</p> <p>Oregon's Renewable Portfolio Standard (RPS) establishes a requirement for how much of Oregon's electricity must come from renewable resources like wind. The current RPS is set at 50 percent by 2040. RFA 6 is another step for the Facility to contribute to meeting this requirement.</p>	(2) Compliance during all phases (3) Completion of construction (4) Prevention of hazardous site conditions (8) General reporting obligation for energy facilities under construction or operating (23) Notification to ODOE of natural event, fatal injury, compromised safety operations (25) Report of Site Certificate violations (137) Compliance as amended and wind turbine dimensions (138) Commencement of Facility modifications (139) Completion of Facility modifications
OAR 345-022-0010 Organizational Expertise	Applicable and complies. The Council has previously determined that NEER has adequate organizational expertise to construct, operate and retire a wind energy facility. There is no proposed change to the Certificate Holder who has been operating the Facility for over 11 years and implementing mitigation and monitoring per applicable Site Certificate Conditions. The Certificate Holder management team and the NEER family of companies have deep regional expertise, derived over years of successfully permitting and operating hundreds of MWs of wind energy projects in the Oregon. See sections 4.5 and 6.1.1 for accompanying analyses.	(28) Report of change in corporate structure (46) Notification of contractor identities (47) Compliance of construction workers (57) Notification of changing construction contractors (136) Notification to third party interest
OAR 345-022-0020 Structural Standard	Applicable and complies. Exhibit H of RFA 5 included updated information regarding climate change and the potential impacts to the Facility. This sixth RFA makes no changes that will alter the basis for the Council's prior findings for the structural standard and does not alter the Certificate Holder's ability to comply with the Site Certificate conditions (see Section 6.1.2).	(16) Avoidance of seismic hazards (17) Notification of foundation changes (18) Notification of other geological observations (49) Compliance of building codes (95) Inspection of turbine blades (140) Operations wind turbine foundation inspections (141) Operations wind turbine tension inspections
OAR 345-022-0022 Soil Protection	Applicable and complies. Exhibit I of RFA 5 reviewed impacts for the Facility on soils and included the NPDES 1200-C permit which was submitted to the ODEQ. The Council previously found that the Facility will comply with the Soil Protection Standard. The total maximum permanent and temporary disturbance will be similar to or less than analyzed in Exhibit I of RFA 5 (see Section 6.1.3). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings.	(29) Prevention of erosion, soil disturbance (60) Erosion and Sediment Control Plan (ESCP) (61) Best management practices (BMPs) to be included in ESCP (92) Prevention of impacts from erosion

Standard	Applicability & Compliance	Related Site Certificate Conditions
OAR 345-022-0030 Land Use	<p>Applicable and complies. Exhibit K of RFA 5 reviewed impacts for the Facility on Land Use. The Facility with proposed changes will not force a significant change in accepted farm practices, nor will it significantly increase the cost of farm practices. The Facility is already operational and the addition of battery storage, turbine repowering and potential replacement/addition of turbines (Option A replaces three existing turbines and Option B adds two new turbines and replaces one existing turbine) will only result in minimal impacts contained within previously disturbed construction areas. Approval of the amendment will not result in any land use impacts that have not been addressed by the Council; the amendment will not expand the Site Boundary or alter the authorized uses (see Section 6.1.4). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings under OAR 345-022-0030 that the Land Use Standard is satisfied.</p>	<ul style="list-style-type: none"> <li>(30) Weed control and reseeding</li> <li>(31) Storage of fuel and chemicals</li> <li>(40) Disturbance of farming activities on adjacent lands</li> <li>(42) Road improvement that doesn't meet construction definition</li> <li>(44) Usage of minimum land area for roads</li> <li>(45) Agreement to use specific roads and restoration</li> <li>(77) Traffic control procedures</li> <li>(81) Restoration of county roads</li> <li>(82) Restoration of laydown areas</li> <li>(125) Record Covenant Not to Sue regarding farming practices</li> <li>(126) Compliance with county setbacks</li> <li>(127) Annual report delivered annually to County</li> <li>(142) County road right of way setback adherence</li> </ul>
OAR 345-022-0040 Protected Areas	<p>Applicable and complies. Exhibit L of RFA 5 reviewed impacts for the Facility on Protected Areas. The proposed changes do not modify EFSC's previous finding for Protected Areas (see Section 6.1.5). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0040 the Protected Areas Standard is satisfied.</p>	N/A
OAR 345-022-0050 Retirement and Financial Assurance	<p>Applicable and complies. The Certificate Holder is still able to restore the site to a useful, nonhazardous condition following permanent cessation of construction or operation of the facilities (see Section 6.1.6; Exhibit W of RFA 5). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0050 Retirement and Financial Assurance Standard is satisfied.</p>	<ul style="list-style-type: none"> <li>(19) Retirement plan</li> <li>(41) Usage of bond</li> <li>(109) Letter of credit naming State as payee</li> </ul>
OAR 345-022-0060 Fish and Wildlife Habitat	<p>Applicable and complies. Proposed changes will be within existing Site Boundary in areas surveyed for fish and wildlife habitat as documented in Exhibit P of RFA 5. Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0060 Fish and Wildlife Habitat Standard is satisfied (see Section 6.1.7).</p>	<ul style="list-style-type: none"> <li>(39) Protection of listed species present</li> <li>(52) Design to avoid wildlife impacts</li> <li>(63) Implementation of wildlife impact mitigation</li> <li>(64) Prevention of raptor prey habitat</li> <li>(65) Fish and wildlife habitat mitigation measures</li> <li>(68) Minimalization of impacts to Category 6 habitat</li> <li>(89) Flagging of environmentally sensitive areas</li> <li>(90) Environmental training for personnel</li> <li>(91) Prevention of erosion, weeds, and revegetation</li> <li>(93) Wildlife Monitoring and Mitigation Plan</li> <li>(94) Mitigation for loss of habitat</li> <li>(112) Provide maps, locations to agencies</li> <li>(114) Installation of bird deterring devices</li> <li>(131) Avoid disturbance to Category 1 and 2 habitats</li> </ul>

Standard	Applicability & Compliance	Related Site Certificate Conditions
OAR 345-022-0070 Threatened and Endangered Species	Applicable and complies. The Facility will be constructed within the approved Site Boundary where impacts to T&E species have already been reviewed (Exhibit Q of RFA 5). Therefore, impacts to threatened and endangered species have already been found by Council to be consistent with the relevant standards (see Section 6.1.8).	(53) Status of Swainson's hawk nests (54) Burrowing owl surveys (55) Listed plant species surveys (56) Washington ground squirrel surveys (69) Avoidance of WAGS colonies and burrows (70) Reducing injuries and fatalities to migratory species (117) Construction buffer around ferruginous hawk nests
OAR 345-022-0080 Scenic Resources	Applicable and complies. Exhibit R of RFA 5 reviewed impacts for the Facility on Scenic Resources. The proposed changes do not modify EFSC's previous finding for Scenic areas (see Section 6.1.9). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0080 Scenic Resources Standard is satisfied.	(37) Minimization of visual impacts
OAR 345-022-0090 Historic, Cultural and Archaeological Resources	Applicable and complies. Desktop surveys were conducted for the Site Boundary and identified resources will be protected per conditions (see Section 6.1.10). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0090 Historic, Cultural and Archaeological Resources is satisfied.	(75) Marking of buffer areas (76) Work cease due to historical find (143) Training and Inadvertent Discovery Plan implementation
OAR 345-022-0100 Recreation	Applicable and complies. Exhibit T of RFA 5 reviewed impacts for the Facility on Recreation Areas. The proposed changes do not modify EFSC's previous finding for Recreation Areas (see Section 6.1.11). Therefore, this sixth RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0100 Recreation Standard is satisfied.	N/A
OAR 345-022-0110 Public Services	Applicable and complies. RFA 6 does not alter the basis for the Council's prior findings for public services and does not alter the Certificate Holder's ability to comply with the Site Certificate conditions (see Section 6.1.12). Existing conditions apply to the Facility which will include the battery storage.	(33) Contract with local fire department (35) Installation of security measures (48) Development of health and safety plan (85) Prepare and maintain health and safety plan (88) Turbine blade washing (96) Annual fire prevention and response training (103) Fire prevention construction practices (130) On-site well water usage (144) Installation of traffic reduction measures
OAR 345-022-0120 Waste Minimization	Applicable and complies. RFA 6 is not anticipated to substantially increase the amount of solid waste and wastewater generated by the Facility (see Section 6.1.13). Therefore, this first RFA makes no changes that will alter the basis for the Council's earlier findings that the OAR 345-022-0120 Waste Minimization Standard is satisfied.	(71) Minimum waste management plan requirements (73) On-site sewage handling (74) On-site assistant of waste management (83) Materials disposed of as fill on-site (86) Recycling on solid during operation (129) Discharge of sanitary wastewater (145) Recycling and reusing of repowered parts

Standard	Applicability & Compliance	Related Site Certificate Conditions
OAR 345-024-0010 Public Health and Safety Standards for Wind Energy Facilities	Applicable and complies. See Section 6.1.3 for structural safety information. NEER family of companies has expertise, derived over years of successfully operating hundreds of MWs of wind energy projects (see Section 6.2.1). RFA 6 does not alter the basis for the Council's prior findings regarding public and safety and does not alter the Certificate Holder's ability to comply with the Site Certificate conditions (see Section 6.2.1).	(31) Storage of fuel and chemicals (32) Following handling instructions (33) Contract with local fire department (34) Water-carrying trailers (35) Installation of security measures (36) Notification of accidents/failures (58) Prevention of construction fires (96) Annual fire prevention and response training (103) Fire prevention construction practices (113) Electric and magnetic field safety measures (128) Water truck on-site (146) Notice of Proposed Construction or Alteration
OAR 345-024-0015 Siting Standards for Wind Energy Facilities	Applicable and complies. The Facility is operational with existing infrastructure. The proposed changes are being designed in consideration of cumulative adverse environmental effects. RFA 6 does not alter the basis for the Council's prior findings for OAR 345-024-0015 Siting Standards for Wind Energy Facilities and does not alter the Certificate Holder's ability to comply with the Site Certificate conditions (see Section 6.2.2).	(44) Usage of minimum land area for roads
OAR 345-024-0090 Transmission Lines	Not Applicable. There will be no changes to the transmission line as part of RFA 6.	N/A
OAR 340-035-0035 Noise	Applicable. The noise study results indicated compliance with the ODEQ noise limits at all 37 of the noise sensitive receptor (NSRs); however, noise levels at five of the 37 NSRs (IDs 21, 23, 33, 35 and 37) were predicted to exceed the decibel limit. Noise waivers were obtained from NSR IDs 21, 23, 33 and 35. NSR ID 37 is a non-participant; therefore, a noise waiver will be obtained or a layout that complies with the standard will be developed during preconstruction compliance to address the predicted exceedance of the OAR ambient degradation standard at that location. The study showed that noise levels will be in compliance with the ODEQ ambient noise degradation rule at the remaining 32 of 37 NSRs. See Section 6.3.1.	(78) Confine noise activities to daylight hours (120) Verification of actual sound lower level (133) Final Facility design noise analysis and noise waiver if applicable (134) Noise complaint response system (147) Location of temporary staging areas and notice to landowners (148) Final modified Facility design noise analysis and noise waiver if applicable
Removal-Fill Law	Applicable and complies. A removal-fill permit is not needed for the Facility because the Facility will not temporarily or permanently impact waters of the state (see Section 6.3.2).	(118) Removal Fill
Water Rights	Applicable and complies. Water volumes will not substantially increase and sources will not change from what was previously approved by Council for use during construction and operation of the Facility. (see Section 6.3.3).	N/A

## **6.1 Applicable Division 22 Standards**

### ***6.1.1 General Standard of Review – OAR 345-022-0000***

The Council previously found that the Facility complies with the General Standard of Review. For RFA 6, the requirements of OAR 345-022-000 are addressed in the findings, analysis, and conclusions discussed in the following sections (and previously incorporated into all exhibits of RFA 5, particularly Exhibit E and CC). As detailed in the following sections, RFA 6 meets all applicable standards and conditions (General Conditions 2, 3, 4, 8, 23, 25, 137, 138, and 139) and the Council can continue to find that the requirements of OAR 345-022-000 are met. Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 137, 138, and 139 to reflect the changes proposed by RFA 6 (see Section 5.0).

Oregon's RPS establishes a requirement for how much of Oregon's electricity must come from renewable resources like wind. The current RPS is set at 50 percent by 2040. In addition to Oregon's RPS, private companies have their own renewable energy procurement policies, which increase the demand for renewable energy in Oregon. These public and private policies are intended to reduce greenhouse gas emissions, mitigate climate impact, and reduce reliance on carbon-based fuels. Wind generation, battery storage and wind upgrading or repowering projects like this upgrade to the Facility provide for future optimized, consistent energy output to help further these policies. In addition, a mission of Oregon's Climate Action Plan is to achieve a reduction in greenhouse gas emissions levels to at least 45 percent below 1990 emissions levels by 2035, and at least 80 percent below 1990 emissions levels by 2050. By producing renewable energy more consistently, the Facility upgrade will contribute to the reduction of greenhouse gas emissions.

NEER maintains a strong presence in the local community and thereby provides a positive economic impact and public benefit. For the entire SWP, during operations there are over 32 direct jobs on site, with a majority living in-state. The SWP provides approximately \$40 million of capital annually to the local community, between lease payments to landowners and property taxes. On balance, the Council may find that proposed change in RFA 6 promotes Oregon energy policy and provides a net public benefit, and may conclude that the Facility, as modified by RFA 6, continues to comply with the General Standard.

### ***6.1.2 Organizational Expertise – OAR 345-022-0010***

The Certificate Holder's information, including contact information, is included in Section 2. The Certificate Holder is a wholly-owned indirect subsidiary of NEER. The full name and address of NEER is provided in Section 2.

The Council previously found the Certificate Holder Owner has demonstrated an ability to construct, operate, and retire the Facility in compliance with Council standards and conditions (Conditions 28, 46, 47, 57, and 136) of the Site Certificate as reviewed during RFA 1, RFA 2, RFA 3, RFA 4 and RFA 5. This finding was based on a review of qualifications of NEER personnel who will

be responsible for the construction and operation of the Facility. There has been no change to NEER' ownership, management, or holdings that will alter the previous conclusion.

NEER is the world's largest generator of renewable energy from the wind and sun. NEER is a regionally diversified company with approximately 5,100 employees dedicated to the production of approximately 21,000 MW, from 175 facilities in 36 states and four Canadian provinces. With more than 10,000 wind turbines in its fleet, NEER's wind generation capacity totals more than 15,000 MW. NEER is also capable of generating more than 2,100 MW of electricity from natural gas facilities, operates three nuclear power plants with a capacity of more than 2,700 MW, and operates more than 3,000 MW of solar energy. It is estimated that nearly 95 percent of the electricity produced by NEER comes from clean or renewable sources. Along with its rate-regulated sister company, Florida Power and Light, NEER is a wholly owned subsidiary of NextEra Energy, Inc. NextEra Energy, Inc. is a Fortune 150 Company with a market capitalization of approximately 134 billion dollars. The financial strength of NEER and its parent company provides the company with the financial capital to self-finance and build up to 4 billion dollars of projects per year on its own balance sheet.

NEER's energy storage team is leading the growth of the storage market with more than 145 MW of operating energy storage assets, including the Lee DeKalb Energy Storage Facility in Illinois and the Blue Summit Energy Storage Facility in Texas. There have been no citations for the operating facility. Further, it is integrating another 100 MW of energy storage systems that are under late stage development or construction today. NEER has also signed Power Purchase Agreements for several of the largest solar plus storage projects in the United States including 10 MW/40 megawatt-hours (MWh) energy storage paired with 20 MW of solar under long-term contract with Salt River Project and currently operating in Arizona; 30 MW/120 MWh storage project paired with 100 MW of solar under long- term contract with Tucson Electric Power which began operation in 2021. Additionally, according to Jim Robo, the Chairman and CEO of NEER, "NEER expects to invest more than \$1 billion in storage in 2021, which would be the largest-ever annual battery storage investment by any power company in history."

Within Oregon, NEER subsidiaries—FPL Vansycle, LLC and FPL Energy Stateline II—constructed, own, and operate 186 turbines, with a total peak generating capacity of 123 MW at the Stateline 1 and 2 wind energy facilities, and 43 turbines with a total peak generating capacity of 99 MW at the Vansycle II Wind Energy Facility. NEER subsidiaries recently completed a 300-MW wind farm in Morrow County, Oregon – the Wheatridge Renewable Energy Facility II – and are currently constructing a solar facility that includes battery storage (Wheatridge Renewable Energy Facility III [WREFIII]) in Morrow County, Oregon. The Council previously found that the Certificate Holder had the experience to construct and operate battery storage facilities (and wind and solar facilities) at both facilities (ODOE 2018, ODOE 2019, Tetra Tech 2018, Tetra Tech 2019). Preconstruction compliance review which included verification of state and local permitting for WREFIII was provided by ODOE (re: Preconstruction Compliance Evaluation for Wheatridge Renewable Energy Facility III Site Certificate, dated May 20, 2021, Sarah Esterson). Moreover, WREFIII received a construction compliance site visit from Duane Kilsdonk with ODOE on August 25, 2021. ODOE

siting staff (Sarah Esterson) also conducted a general site visit on September 15, 2021; no issues have been reported. Through this relationship, the Certificate Holder's management team and the NEER family of companies have deep regional expertise, derived over years of successfully permitting and operating hundreds of MWs of wind energy projects in Oregon. NEER employees have deep local ties to the communities they operate in, and a solid history of understanding local economic development, permitting, environmental concerns and compliance with the various conditions stipulated within an EFSC Site Certificate as documented through the annual reporting (Condition 127) which has been completed for the SWP since 2001. There are no recorded citations, nor North American Energy Reliability Corporation violations, for these projects. NEER repowered 1,591 MW of wind in the United States in 2017, including blade and gearbox change outs across nine sites in Texas, and (partnering with Blattner and SGRE) NEER successfully executed the repower of almost 200 SWT 2.3-93 machines owned by NextEra Energy, Inc. for ERCOT in West Texas in 2017, constituting approximately 29 percent, or 460 MWs, of the total 1,591 MWs that NEER repowered in 2017. Therefore, NEER has experience in turbine repowering tasks and actions including wind tower repower, blade and nacelle replacement, and associated construction activities.

The Facility has been operational since 2009 and there are no circumstances that will alter the basis for the Council's earlier findings regarding organizational expertise. Therefore, the Council may rely on its previous findings that the Certificate Holder continues to have the organizational expertise to construct, operate, and retire the Facility in compliance with Council standards and Site Certificate conditions.

#### **6.1.3     *Structural Standard – OAR 345-022-0020***

The Council previously found that the Facility complies with the Structural Standard. The Structural Standard generally requires the Council to evaluate whether the Certificate Holder has adequately characterized the potential seismic, geological, and soil hazards within the Site Boundary, and that the Certificate Holder can design, engineer, and construct the Facility to avoid dangers to human safety from these hazards. Prior to construction of the Facility, the Certificate Holder adequately characterized the seismic hazard risk of the site through an appropriate site-specific study and had designed, engineered, and constructed the Facility in accordance with the requirements set forth by the State of Oregon's Building Code Division, as well as all other applicable codes and design procedures, to meet or exceed the minimum standards required by the Oregon Structural Specialty Code and 2006 International Building Code (Site Certificate Condition 49; see Exhibit H of RFA 5). In addition, the Certificate Holder met Site Certificate Condition 16 by designing, engineering, and constructing the Facility to avoid dangers to human safety presented by seismic hazards and completed site-specific geotechnical investigations in compliance with Condition 132 (SWP Fourth Amended Site Certificate, May 2009). The Certificate Holder previously complied with Site Certificate Conditions 50 and 51, which provide design requirements for foundations. Per Condition 59, the Certificate Holder had the foundation designer inspect the excavations of all turbine foundations to confirm geologic conditions can provide the appropriate support.

The Certificate Holder conducted a detailed, site-specific geotechnical investigation of the Facility site before construction began on the Stateline 3 iteration of the Facility. The Final Order for Amendment 4 stated:

*DOGAMI requested the results of future site-specific geotechnical investigation prior to construction of the Stateline 3 components and advised the applicants to prepare reports according the Guidelines for Engineering Geology Reports and Site-Specific Hazard Report (Open File Report 00-00-4). DOGAMI advised that the facilities should be designed to meet the current 2007 Oregon Structural Specialty Code and the 2006 International Building Code.*

The Certificate Holder submitted the requested site-specific geotechnical investigation to DOGAMI and ODOE in May 2009 as part of Condition 132 of the SWP Fourth Amended Site Certificate. DOGAMI confirmed receipt of the report in June 2009, and provided no other comments or response to the geotechnical investigation.

Consultation with DOGAMI was conducted in support of RFA 5 on March 5, 7, and 9, 2018 (see Attachment H-1 of Exhibit H, RFA 5). During consultation, DOGAMI confirmed that based on the Certificate Holder's proposed repower to the Facility, no additional geotechnical or geologic hazards analyses will be required but requested that RFA 5 address disaster resilience and future climate conditions (see discussion below). All the proposed changes are within the Site Boundary and the areas assessed in Exhibit H of RFA 5. Based on review of a current list of geologic resources provided by the Oregon Department of Geology and Mineral Industries (DOGAMI; August 6, 2021; DOGAMI 2021a, DOGAMI 2021b, DOGAMI 2021c, DOGAMI 2021d, DOGAMI 2018, Franczyk et al. 2020, Oregon.gov 2019, USGS 2021, USGS 2018, USGS 2016, USGS 2014, USGS 2004), no new seismic or nonseismic events were found to occur at the Facility.

During completeness review of the preliminary RFA 5, DOGAMI requested additional foundation assessments to support RFA 5, as provided in Attachment H-2 of Exhibit H, RFA 5 (submitted under separate cover; confidential). In consideration of DOGAMI's request for RFA 5, the Certificate Holder is completing an updated foundation assessment for the turbine changes proposed in RFA 6. Based on the results of the foundation assessment, any identified necessary mitigation and remediation measures will be implemented prior to repower, and/or operational inspection timing recommendations will be implemented once the repower has been complete. Because the results of the foundation assessment will be specific to the changes proposed in RFA 6, the Certificate Holder proposes to amend Condition 140 which was developed specific to RFA 5 design considerations and remove Condition 141 to provide for compliance documentation that reflect the foundation assessment findings and recommendations based on the repower technology that will be used at the Facility<sup>6</sup>.

The Certificate Holder will continue to inspect all turbine and turbine tower components on a regular basis and maintain or repair turbine and turbine tower components as necessary in compliance with Site Certificate Condition 95. The regular turbine and tower component inspection

---

<sup>6</sup> This is similar to the structural analysis process for an ASC as there are no requirements in Division 21 for detailed foundation design documentation (see also OAR 345-022-020(2)). Moreover, this is the same approach that was taken for Shepherds Flat Central, North, and South; and which the Council approved.

process are not anticipated to change as a result of the repowering project because the turbine components and how they function will generally stay the same. However, at minimum the annual inspection process and procedures will "restart" as if the Facility is new rather than having been operational for over 11 years. Therefore, the turbines will undergo the same and more rigorous inspections of a new facility, which will start with a full inspection of all turbines and turbine components within 6 months of being upgraded. After the 6-month inspection, the Facility will be in the typical annual inspection process. Additionally, the Supervisory Control and Data Acquisition system provides 24/7, real-time monitoring and control for every turbine for potential maintenance needs.

The battery storage will be collocated with the existing substation within the approved and existing Site Boundary; therefore, areas that were assessed in Exhibit H of RFA 5 still remain valid. The most up-to-date building and structural codes, reflecting the most up to date methodologies and definitions of the ground motions used for seismic design, will be used during the construction of the proposed updates. Land disturbing activities associated with Facility construction will be mitigated through reseeding and restoration, as per the conditions stipulated in the Site Certificate; Additionally, BMPs will be implemented through the NPDES 1200-C permit (see Section 6.1.4).

The information requested for an ASC to address the Structural Standard has been revised since the time the Site Certificate was issued (OAR 345-021-0010(h)). Although the OAR-345-022-0020 standard itself has not been substantively modified, the Certificate Holder provides information below to address two new areas of concern requested for Exhibit H of new applications: disaster resilience and climate change impacts.

The Facility has been in operation for over 11 years. During that time, climate change has not impacted the Facility. Future climate conditions, which may include greater-intensity rainfall events, fluctuations in typical annual snowpack (above or below normal), and warmer average annual temperatures, are also not anticipated to have a major impact on the geologic, geotechnical, and seismic conditions at the Facility. Sea level rise will not affect the Facility due to its location. The Facility's design accounts for future climate extremes during its projected lifespan. To provide disaster resiliency, the Certificate Holder has designed the battery storage installation and repower to current code and taken into consideration seismic ground motions that exceed the building code response spectrum.

The Certificate Holder operations team maintains an Emergency Action Plan (see Attachment H-3 of Exhibit H, RFA 5) for the Facility that is updated annually. The plan outlines the procedures to effectively respond to a natural disaster, including on-site safety requirements and communication protocol. The Emergency Action Plan also addresses how to safely return to operations following an emergency. While it is hard to predict all future climatic conditions, current codes and design specifications are continuously evolving and go through annual technical reviews to ensure they are current to the latest technology and means and methods for renewable energy facilities. See Section 6.1.1 above for additional discussion on how the Facility may help minimize the impacts of climate change.

RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). BMPs will continue to be implemented for the facilities, as proposed, including through the NPDES 1200-C permit (see Section 6.1.4 below) and the Emergency Action Plan. As noted above the Certificate Holder has and will continue to condition compliance adequately to characterize the seismic, geological and soils hazards and can design, engineer, and construct the Facility to avoid dangers to human safety and the environment presented by the hazards identified (see also Sections 6.1.2 and 6.2.1). Therefore, based on the information provided and the conditions imposed on the Facility, the Council may conclude that the Facility, as modified by RFA 6, continues to comply with the Structural Standard.

#### **6.1.4     *Soil Protection – OAR 345-022-0022***

The Council previously found that the Facility complies with the Soil Protection Standard. The Soil Protection Standard requires the Council to find that, after taking mitigation into account, the design, construction, and operation of a facility will not likely result in a significant adverse impact to soils. Exhibit I of RFA 5 identified the soil conditions and land uses in accordance with the submittal requirements in OAR 345-021-0010 (1)(I) paragraphs (A) through (E). Battery storage installation and upgrading the Facility will cause minimal permanent disturbance and moderate temporary disturbance, largely in areas that were previously temporarily and permanently disturbed as part of Facility construction. However, disturbance from battery storage installation and upgrading will be substantially less in area and depths compared to Facility construction (See Section 3.0). Most temporary disturbance will occur at the staging area, around turbines, and along the Facility roads/crane paths where the cranes will move turbine components. The majority of soil erosion impacts will be of limited duration, a maximum of 10 months (including mobilization). The Certificate Holder will minimize temporary disturbance by making use of previously disturbed areas, including staging areas, roadways and turbine pads. Any temporarily disturbed sites will be restored to preconstruction condition or better as described in the Facility Revegetation Plan (Condition 65; see Fish and Wildlife standard), as is routinely done as part of O&M activities. The Certificate Holder shall also inspect and maintain roads pads and trenched areas to minimize erosion (Condition 29).

New permanent disturbance will occur as a result of the battery storage installation and if repowering configuration Options A or B are chosen (see Section 3.0); However all proposed updates will be within the previous Site Boundary and in previously disturbed construction areas. The battery storage will be a total of 7.21 acres, collocated with the existing substation. If repower configuration Options A or B are chosen, up to three new foundation are proposed, however all updates will occur at previously approved turbine locations. The replacement of three Siemens turbines to GE technology (at turbines 11, 12, and 13), as proposed for Option A, will occur within one arc of the current turbine(s), as permitted by the Federal Aviation Administration (FAA) Determinations of Hazard. The addition of two new GE turbines (and replacement of existing Siemens turbine 11 to GE technology), as proposed for Option B, will occur at previously approved

alternative turbine locations (ALT-1 and ALT-2). As stated in Section 6.1.3, updated site-specific geotechnical work will be required prior to construction to incorporate the changes to the Facility.

All work conducted at the site during Facility construction followed requirements of the ESCP and the NPDES 1200- C permit as required by Site Certificate Condition 60 and as reviewed by ODOE through construction and annual reporting (Condition 127). As noted above, battery storage installation and upgrading the Facility will have fewer permanent and temporary impacts than Facility construction both in area and depth of ground disturbance. Although there will be approximately 12.1 acres of potential permanent impacts (depending on repowering configuration option chosen) and 211.7 acres of temporary impacts, as noted above, not all will be disturbance causing areas of bare soil (see Table 3). Battery storage installation and upgrading activities will primarily occur at the battery storage site, staging area, turbine pads, and along roadways/crane paths. Vegetation will be permanently disturbed due to the battery storage installation and if repowering configuration Options A or B or chosen, which either relocate, replace, or add turbines; note that for either option, the turbines will be located in previously approved turbine locations (see above). Vegetation will be temporarily disturbed by crane tracks and semi-trucks as they briefly drive over vegetation, or the placement of components around the turbines and battery storage. Grading or earth disturbing activities will be needed in areas of new foundations (if repowering configuration Options A or B are chosen; see Section 3.0), the battery storage, and for some widening improvements along existing Facility roads. There will also be some additional spots of earth disturbing activities, primarily at laydown areas and along access roads/crane paths. Therefore, it is anticipated that there will be roughly 223.7 acres total of earth disturbing activities (see Table 3). Regardless if a NPDES 1200-C is required, local, county, and state erosion control standards and erosion control BMPs will be followed, as pertinent, to the upgrading activities. Erosion control BMPs as outlined in Conditions 61 and 92 may include the following, which will be incorporated into the NPDES 1200-C, if applicable:

- Maintaining vegetative buffer strips between the areas impacted by construction activities and any receiving waters.
- Installing sediment fence/straw bale barriers at locations shown on the plans.
- Wherever feasible, constructing roadways so that surface drainage continues along natural drainage patterns with minimal diversions through ditches and culverts.
- Working with the Umatilla County Public Works Department and the local Natural Resources Conservation Service office to design water bars and other management practices to slow the flow of water on newly constructed repaired roads.
- Straw mulching and discing at locations adjacent to the road that have been impacted.
- Providing temporary sediment traps downstream of intermittent stream crossings.
- Providing SediMat type mats downstream of perennial stream crossings.
- Planting designated seed mixes at impacted areas adjacent to the roads

- Installing sediment fencing along the downslope side of construction equipment staging areas.
- Seeding all areas that are impacted by construction and reseeding as necessary to establish a healthy cover crop.
- Leaving sediment fencing, check dams and other erosion control measures in place until the impacted areas are well vegetated and the risk of erosion has been eliminated.
- Limiting truck and heavy equipment traffic, to the extent possible, to improved road surfaces, and thereby limiting soil compaction and disturbances.
- Scarifying and reseeding compacted areas after construction is completed.
- Using appropriate erosion control methods to limit soil loss due to water and wind action.
- Covering roads and turbine pads with gravel immediately following exposures, thereby limiting the time for wind or water erosion.
- Using water for dust suppression during construction.
- Using drainage collection procedures to capture surface water that collects on, and drains from, gravel surfaces or structures as a result of precipitation and routing the water to drainage ditches lined with quarry stone or other similar materials.
- Using sand bags, straw bales and silt fences as needed to reduce erosion from precipitation during repair of underground cables or other soil-disturbing repairs.
- If areas of erosion are observed during operation, implementing mitigation and reclamation measures.

Lithium-ion battery systems are modular systems. Each module contains multiple smaller battery cells, each measuring up to approximately 3.2 centimeters by 7 centimeters. The cells are the primary containment for the gel or liquid electrolyte materials. The module containing the cells is relatively small, generally about the size of a desktop computer processor, and serves as leak-proof secondary containment. Modules are placed in anchored racks within the steel containers; typically, each rack houses six to 13 battery modules along with a switchgear assembly. Although leaks from the modules are very unlikely because any leak will require failure of the individual cell(s) as well as the sealed module, any material that might leak from the cell into the module and then to the floor of the container will easily be contained within the 20-foot by 9-foot container. During O&M of the facility, maintenance staff will regularly check the battery systems to confirm that no unusual conditions have developed, and will take immediate action to remove and replace any battery modules that might malfunction. Any battery malfunctions will generally be detected as a reduction in battery function well before an actual leak developed. Each battery module and battery rack are individually protected by overcurrent fuses that operate independently of the control system to avoid out of specification voltage. The potential for site contamination by the lithium-ion battery modules is remote. Inspections of the Facility combined with electronic monitoring of battery performance are sufficient to detect a leak in the unlikely case one were to occur. If a module

(secondary containment) were to leak, any spill will be necessarily small given the size of the module and small quantities of fluid or gel electrolyte involved. Such a leak will easily be contained inside the storage facility (tertiary containment) and will be cleaned up as soon as it was discovered. There is virtually no possibility of such contamination reaching the ground without being discovered and therefore no monitoring plan or a condition for monitoring plan is warranted.

During the Facility upgrade and battery storage installation, potentially hazardous materials that could be used include lubricating oils. As with other O&M activities that are conducted at the Facility, the Certificate Holder will continue to enforce adherence to the Facility's construction Spill Prevention Control and Countermeasures Plan and Site Certificate Condition 32 to handle hazardous materials present on site in a manner that protects public health, safety, and the environment (see Public Health and Safety Standard). Additionally, for the battery storage, the Certificate Holder will follow the handling guidelines of 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration related to the shipment of lithium-ion batteries. The regulations include the following requirements, among others:

- Prevention of a dangerous evolution of heat;
- Prevention of short circuits;
- Prevention of damage to the terminals; and
- Prevention of contact with other batteries or conductive materials.

Third party energy suppliers will be responsible for transporting batteries to and from the Facility in accordance with applicable regulations, as required through their licensure. In general, adherence to the requirements and regulations will minimize the potential for impacts to soil related to transport, use, or disposal of batteries.

The proposed change in this RFA do not affect the basis for the Council's previous findings of compliance with the Soil Protection Standard because the Facility upgrade and battery storage installation will occur within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments) and disturbance will be minor in comparison to Facility construction. RFA 6 does not seek to enlarge the existing Site Boundary. The Facility must still comply with the Soil Protection Conditions previously imposed on the Facility (as discussed above; Table 5) as they relate to upgrading. The Facility is already constructed, and the Certificate Holder has met all preconstruction and construction conditions, and continues to meet operational conditions as documented in annual reporting (Condition 127). Therefore, the Council may conclude that the Facility, as modified by RFA 6, continues to comply with the Soil Protection Standard.

#### **6.1.5 *Land Use – OAR 345-022-0030***

The Council previously concluded that the Facility complies with the Land Use Standard. Under OAR 345-021-0010(1)(k), an applicant must elect to address the Council's Land Use standard by

obtaining local land use approvals under Oregon Revised Statutes (ORS) 469.504(1)(a), or by obtaining a Council determination under ORS 469.504(1)(b). The Certificate Holder elected to have the Council make the land use determination for the Facility under ORS 469.504(1)(b) and OAR 345-022-0030(2)(b).

RFA 6 does not affect the Council's previous findings of compliance with the Land Use Standard, because the upgrades will not enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments; see Exhibit K of RFA 5). Most turbine improvements (for all three repowering configurations) will be done to existing turbines within the previously approved and disturbed construction areas, thus maintaining a majority of the Facility footprint and reducing the amount of new facilities required. The proposed battery storage will be collocated with the approved and existing substation. Note that the changes as proposed by RFA 6 will not change how the Facility is operated. RFA 6 does not propose alterations to any Facility infrastructure besides turbines and proposes only the new addition of battery storage technology. Therefore, the Certificate Holder addresses the Land Use Standard accordingly, and does not review the transmission line or features other than those identified in Sections 1 and 3.

In its evaluation of the Facility under the Land Use Standard (OAR 345-022-0030) in the Final Order on the ASC, and in subsequent RFAs, the Council considered the applicable, substantive criteria. This includes the Umatilla County Development Code (UCDC); adopted 1983 and amended through 2020. The UCDC has not had changes to the applicable sections that will impact the Council's prior findings under the Land Use Standard. The changes to these documents either do not apply to the location or zoning of the Facility site, or to the land use classification of the Facility or the Facility improvements. The Certificate Holder has addressed the applicable substantive criteria for RFA 6 in Attachment 3 and has summarized the findings herein.

The energy storage system is a related or supporting facility under OAR 345-001-0010(51) because it "...would not be built but for the construction and operation of the Facility." Similarly, under OAR 660-033-0130(37), it is an "other necessary appurtenance" to the wind power generation facility. In Umatilla County, all components of the Facility and its related or supporting facilities (including energy storage) qualify as a "wind power generation facility," which is a type of "commercial utility facility for the purpose of generating power for public use by sale" allowed as a conditional use under UCDC 152.060(F). Energy storage supports the Facility by providing an energy distribution function, like a substation provides an energy wattage conversion for distribution function. Therefore, the energy storage system is a necessary appurtenance to the Facility.

As stated in Section 152.616(HHH)(10) of the UCDC, an amendment to the conditional use permit shall be required if the proposed Facility changes include any of the following:

*(10) (a) Permit Amendments. The Wind Power Generation Facility requirements shall be facility specific, but can be amended as long as the Wind Power Generation Facility does not*

*exceed the boundaries of the Umatilla County conditional use permit where the original Wind Power Generation Facility was constructed.*

*(b) An amendment to the conditional use permit shall be subject to the standards and procedures found in §152.611. Additionally, any of the following would require an amendment to the conditional use permit:*

- (1) Expansion of the established Wind Power Generation Facility boundaries;*
- (2) Increase the number of towers;*
- (3) Increase generator output by more than 25 percent relative to the generation capacity authorized by the initial permit due to the re-powering or upgrading of power generation capacity; or*
- (4) Changes to project private roads or access points to be established at or inside the project boundaries.*

*(c) In order to assure appropriate timely response by emergency service providers, Notification (by the Wind Power Generation Facility owner/operator) to the Umatilla County Planning Department of changes not requiring an amendment such as a change in the project owner/operator of record, a change in the emergency plan or change in the maintenance contact are required to be reported immediately. An amendment to a Site Certificate issued by EFSC will be governed by the rules for amendments established by ESC.*

Under RFA 6, the Facility could require an amendment to its Conditional Use Permit for Umatilla County. The Facility will not exceed the boundaries of the Umatilla County conditional use permit where the original Wind Power Generation Facility was constructed. UCDC §152.611(C) states that any alteration to a structure shall conform to the requirements for a conditional use or land use decision. Alter is defined as any change, addition or modification in construction or occupancy of a building or structure in UCDC § 152.003 Definitions. Therefore, replacing the nacelles and turbine blades will be an alteration to a structure. However, thresholds for permit amendments specific to wind facilities are included in UCDC § 152.616(HHH)(10)(b). The repowering activities as part of O&M will meet only one of these thresholds (2; increase the number of towers) but only if repowering configuration Option B is chosen. The addition of two new GE turbines (and replacement of existing Siemens turbine 11 to GE technology), as proposed for Option B, will occur at previously approved alternative turbine locations (ALT-1 and ALT-2). Additionally, there will be temporary widening on the existing access roads, but no changes to private roads or access points that are established at or inside the Site Boundary as part of RFA 6. The temporary road widening will be within the area previously disturbed for Facility construction as permitted in RFA 5. Note that per UCDC § 152.616(HHH)(10)(C), there will be no change to the Facility owner/operator of record, no change in the emergency plan, and no change in the maintenance contact as part of RFA 6. In addition, the conditional use criteria for a wind farm on Exclusive Farm Use zoned land is UCDC § 152.616(HHH) which generally applies to the procedure for taking action on the siting of a Wind Power Generation Facility rather than structural alterations to a sited and operational facility. Because the Facility is already sited and constructed rather than in the process of being sited, most

of the applicable conditional use criteria do not apply. Therefore, only the applicable substantive criteria of the UCDC that apply to operational facilities are addressed herein in support of an amendment to the existing conditional use permit, if required for adding a turbine.

The upgrade will occur at mostly existing turbines (depending on the repowering configuration chosen) and both the repowering and battery storage installation will only impact land previously disturbed by construction of the Facility, and which is typically used for Facility O&M activities. Potential technology replacement or addition of turbines (as proposed by repowering configuration Options A and B) will occur in previously approved turbine locations. The replacement of three Siemens turbines to GE technology (at turbines 11, 12, and 13), as proposed for Option A, will occur within one arc of the current turbine(s), as permitted by the FAA Determinations of Hazard. The addition of two new GE turbines (and replacement of existing Siemens turbine 11 to GE technology), as proposed for Option B, will occur at previously approved alternative turbine locations (ALT-1 and ALT-2). The battery storage will be collocated with the approved and existing substation on agricultural land. RFA 6 will continue to comply with all previous setback standards imposed through UCDC Sections 152.063 and 152.616(HHH)(k)(6)(a), as well as Site Certificate Conditions 126 and 142. Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 142 to reflect the changes proposed by RFA 6 (see Section 5.0). Additionally, no impacts or increased farming costs will occur because the Facility is already established and will continue to comply with the terms of the Site Certificate to mitigate on and off-site impacts. During battery storage installation and upgrading activities affecting cultivated land, the Certificate Holder will consult with landowners and implement measures to avoid or reduce disruption of ongoing farming activities, including coordinating with landowners prior to farm road improvements, using the minimum land area necessary, minimizing traffic conflicts, and pursuing a Covenant Not to Sue with regard to accepted farming practices (Conditions 40, 42, 44, 77, and 125). Therefore, the proposed change will not "force a significant change in" the adjacent farming practices or "significantly increase the cost of"<sup>7</sup> an adjacent farming operation. Additionally, the Certificate Holder shall carry out weed control and reseeding for the life of the Facility and will not store fuel or chemicals onsite (Conditions 30 and 31). The Certificate Holder will also continue to enforce proper treatment of Umatilla County roads and reduce traffic conflicts through restoration efforts and use of flaggers (Conditions 45, 77, and 81). Similarly, laydown areas will also be restored through grading and reseeding efforts (Condition 82). Compliance with all land use conditions will continue to be documented through annual reporting (Condition 127).

As described herein, the changes proposed in RFA 6 comply with all applicable substantive criteria. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, the Council can find that the Facility complies with the statewide planning goals adopted by the Land Conservation and Development Commission. Additionally, the Facility will comply with Land Use conditions

---

<sup>7</sup> ORS 215.296(1).

previously imposed on the Facility as they relate to the proposed change (see Table 5). For the reasons discussed above, the Council can find that, with approval of RFA 6, the Facility continues to comply with the Land Use Standard.

#### **6.1.6    *Protected Areas – OAR 345-022-0040***

The Council previously concluded that the Facility complies with the Protected Areas Standard. The Protected Areas Standard requires the Council to find that, taking into account mitigation, the design, construction, and operation of a facility are not likely to result in significant adverse impacts to any protected area as defined by OAR 345-022-0040. Per Exhibit L of RFA 5, there are 11 defined protected areas within the 20-mile analysis area, the nearest being the McNary National Wildlife Refuge, located 5.2 miles away from the Site Boundary. Based on the Certificate Holder's review of protected areas listed in OAR 345-022-0040(1), there are no new protected areas located within the analysis area.

The proposed battery storage installation and upgrades will generate construction-related traffic, but none that will substantially differ from the impacts included in the Final Order on Amendment 5. The previously approved transportation route does not pass through any protected areas. Council previously found that temporary increases in traffic during construction will not result in traffic delays affecting access to protected areas and will not result in a significant adverse impact to any protected area. Based on Council's previous reasoning and because construction-related traffic will not utilize primary roads used to access protected areas within the analysis area, the Council can continue to find that construction-related traffic impacts will not be likely to result in a significant adverse traffic impact to protected areas within the analysis area. Additionally, the proposed RFA 6 facility modifications will not result in changes to operational-related traffic. Therefore, the Council can continue to find that operational-traffic impacts will not impact protected areas within the analysis area.

The proposed battery storage installation and upgrades will generate construction-related noise, but none that will substantially differ from the impacts included in the Final Order on Amendment 5. The nearest protected area to Facility sound sources is the McDonald Bridge Wildlife Area, located 8.3 miles to the north. At this distance, both construction and operational sound will attenuate such that there will be no perceptible noise impact (see Section 6.3.1). The proposed RFA 6 facility modifications will continue to comply with ODEQ requirements during operations; Noise waivers have been obtained for all NSRs that exceed ODEQ decibel limits except NSR ID 37, in which a noise waiver will be obtained or a layout that complies with the standard will be developed during preconstruction compliance to address the predicted exceedance of the OAR ambient degradation standard at that location (see Section 6.3.1). Therefore, the Council can continue to find that operational-noise impacts will not impact protected areas within the analysis area.

The proposed RFA 6 facility modifications will utilize water during construction for dust suppression and road compaction, to be obtained by a third-party contractor from the City of Helix. The proposed RFA 6 facility modifications will not utilize water during operations, except for the use of water at the existing O&M building, which was previously evaluated and approved.

Construction and operation of the proposed RFA 6 facility modifications will not result in wastewater disposal. Therefore, the Council can continue to find that the proposed RFA 6 facility modifications will not be likely to result in significant adverse impacts from water use and wastewater disposal within any protected area.

The proposed wind turbine repowering will increase the maximum blade tip height from 440 to 499 feet and potentially add up to two new turbines (and replacement of existing Siemens turbine 11 to GE technology, as proposed by repowering configuration Option B; considered worst-case scenario). To support its evaluation of potential worst-case visual impacts of the proposed repowered wind turbines at protected areas, the certificate holder completed a comparative “zone of visual influence” (ZVI) analysis, presenting the incremental increase in visibility of the existing 440-foot wind turbines compared to 499-foot wind turbines. As described in RFA 5, the ZVI analysis addresses potential wind turbine visibility based on topography and does not take into account screening from vegetation or structures. The Certificate Holder’s revised ZVI analysis represents a minor increase in visibility (an addition of two turbines visible) at all of the protected areas due to the potential addition of two new turbines (as proposed by repowering configuration Option B; considered worst-case scenario; see Figures 4.1 and 4.2, ZVI Comparative Analysis). Additionally, at the Cold Springs National Wildlife Refuge, up to six additional turbines may be visible at the Refuge due to powering (up to 10 turbines total visible), depending on the viewing location within the protected area (see Figure 4.1). Note that the battery storage will be collocated with the existing substation and will generally be indiscernible compared to the proposed and existing Facility turbines. Based on the distance and minimal amount of potential visibility, the Council can find that the visual impacts of the proposed RFA 6 facility modifications will not result in a significant adverse impact to these protected areas.

The Council did not impose any conditions related to this standard. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, RFA 6, as proposed, does not alter the basis for the Council’s prior findings that the Facility complies with the Protected Areas Standard.

#### **6.1.7    *Retirement and Financial Assurance – OAR 345-022-0050***

The Council previously found that the Facility, taking into account mitigation, could be restored adequately to a useful, non-hazardous condition following permanent cessation of construction or operation (see Exhibit W of RFA 5; Final Order on Amendment 5). In addition, the Certificate Holder has obtained a bond or letter of credit in a form that satisfies Site Certificate Conditions 41 and 109, and will continue to adjust the amount of the bond or letter of credit on an annual basis per Site Certificate Condition 109.

It is anticipated that after updating the Facility, the Facility’s useful life will be approximately 30 years. The Site Boundary will not be changed from what was previously approved. Any physical component changes resulting from the battery storage installation and repowering will be

conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, the specific actions and tasks to restore the site to a useful, non-hazardous condition are substantially similar to that approved for RFA 5. Prior to the start of decommissioning, the Certificate Holder will submit a final retirement plan for Council approval, which will satisfy Condition 19 by describing the activities required to retire the site. After the Council approves the retirement plan, the Certificate Holder will obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration. The retirement plan will include, pursuant to OAR 345-027-0110(5), the following information:

*5) In the proposed final retirement plan, the certificate holder shall include: (a) A plan for retirement that provides for completion of retirement without significant delay and that protects public health, safety and the environment. (b) A description of actions the certificate holder proposes to take to restore the site to a useful, non-hazardous condition, including information on how impacts to fish, wildlife and the environment would be minimized during the retirement process. (c) A current detailed cost estimate and a plan for ensuring the availability of adequate funds for completion of retirement. (d) An updated list of the owners of property located within or adjacent to the site of the facility, as described in OAR 345-021-0010(1)(f).*

The battery storage in particular will be restored by utilizing the following procedures:

- Batteries shall be removed, packaged and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Remaining system components and structures shall be dismantled using industry standard methods, and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Steel pile foundations shall be broken to a maximum of 3' below grade, excavated and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Underground utilities shall be removed to a maximum of 3' below grade and transported to an offsite disposal / recycling facility. Final disposition to be accomplished using legal and permitted methods.
- Topsoil shall be imported and placed to restore the area to pre-construction grade. The area will then be seeded with native vegetation.

The total site restoration cost for the Facility was estimated at \$4,961,000 (Q3 2018 dollars; as submitted in Exhibit W of RFA 5) and continues to be updated annually since construction per Site Certificate Condition 109. Of this amount, approximately \$4,112 was estimated per turbine for removal of hubs and blades by ODOE (see Exhibit W of RFA 5). Since there will be an addition of battery storage and potential change to the number of turbines at the Facility (depending on the turbine configuration option chosen), there will be an increase to this estimate amount to a

maximum of \$6,993,000 for the full project (based on the most extensive turbine configuration, Option B) and \$1,683,789 for the battery storage system (Q1 2021 dollars; see Attachment 4). The cost of transport and disposal of nacelles and towers is calculated per net ton of steel. With turbine configuration Option B, there will be an increase of two turbine towers; Option A will remain a total of 43 turbines, as previously described and approved for RFA 5. The weight of the new nacelle configurations per turbine will be less than the existing nacelle configuration, which may reduce the total estimated restoration cost for the facility. Prior to repowering, the Certificate Holder will update the cost estimate to reflect the decrease and any increase in the cost estimate for the additional turbines and battery storage. Since there will only be one more turbine, and the cost of removing the other turbines will decrease due to the decrease in weight, the estimate will be within the range of the existing bond. Therefore, the Certificate holder has the financial means to restore the site with the changes proposed by RFA 6. RFA 6 does not propose any other changes that will significantly change the total site restoration cost or how the site will be adequately restored to a useful, non-hazardous condition following permanent cessation of construction or operation than was previously approved by the Council. Based on the above information, the Council may find that the Retirement and Financial Assurance Standard is satisfied.

### **6.1.8    *Fish and Wildlife Habitat – OAR 345-022-0060***

As noted in the Final Order on RFA 5 to the Site Certificate, the Council’s Fish and Wildlife Habitat Standard requires the Council to find that the design, construction, and operation of a facility is consistent with ODFW’s habitat mitigation goals and standards, as set forth in OAR 635-415-0025. The Council previously found that the Facility complies with the Fish and Wildlife Habitat Standard. The following describes the Certificate Holder’s review of how the effects on fish and wildlife habitat from the Facility as proposed under RFA 6 may differ from the previously approved Facility and any additional information required to comply with the Fish and Wildlife Habitat Standard.

#### **6.1.8.1    *Information Review and Field Surveys***

The Certificate Holder reviewed information presented in RFA 5 and previous amendments as well as performed the following surveys to inform RFA 6:

- WAGS (*Urocitellus washingtoni*) surveys (Attachment 5);
- Raptor nest surveys (Attachment 6).

No WAGS colonies were observed during two rounds of survey (Attachment 5). Raptor nest surveys (including burrowing owls; per Condition 54) identified three active raptor nests within the survey area (Attachment 6). Note that burrowing owls were not identified during this survey.

#### **6.1.8.2    *Potential Impacts to Habitat***

Repowering the Facility will require a larger temporary disturbance area than discussed for RFA 5. Table 6 below shows the change in temporary disturbance acreages to habitat types (as confirmed during Rare Plant and Habitat Reconnaissance Surveys; see Attachment 7). A majority of the increased temporary disturbances occur in developed and dry agriculture habitat types. This leaves

a total of 4.1 acres of grassland habitat that will be temporarily disturbed during repowering (4.0 acres of Category 3 and 0.2 acres of Category 4). Temporarily disturbed grassland habitat will be revegetated per the SWP Revegetation Plan included as part of RFA 5. New permanent impacts associated with RFA 6 total 12.1 acres and include the footprint of up to five new turbine foundations, a service road to connect the new turbines, and the proposed battery storage location. All of these new permanent facilities are sited in dry agriculture habitat type and will have no impact on wildlife habitat (see Figure 5).

**Table 6. Permanent and Temporary Disturbance Acreages by Habitat Type**

<b>ODFW Habitat Category</b>	<b>Habitat Type</b>	<b>Analysis Area (acres)</b>	<b>RFA 5 Temporary Disturbance (acres)</b>	<b>RFA 6 Anticipated Maximum Temporary Disturbance (acres)</b>	<b>RFA 6 Anticipated Maximum Permanent Disturbance (acres)</b>
1	CRP or revegetated	125.4	0.0	0.0	0.0
	Grassland	11.0	0.0	0.0	0.0
2	Grassland	14.4	0.0	0.0	0.0
	Riparian or riparian trees	2.1	0.0	0.0	0.0
3	CRP or revegetated	665.4	0.0	0.0	0.0
	Grassland	732.5	1.8	4.0	0.0
	Grassland – shrub steppe	261.7	0.0	0.0	0.0
	Shrub steppe	42.3	0.0	0.0	0.0
4	Grassland	95.8	0.2	0.2	0.0
5	Grassland	10.7	0.0	0.0	0.0
	Shrub steppe	44.0	0.0	0.0	0.0
6	Dry agriculture	5,025.0	106.2	168.9	12.1
	Developed	66.0	37.7	37.7	0.0
<b>Total</b>		<b>7,096.2</b>	<b>145.9</b>	<b>210.9<sup>1</sup></b>	<b>12.1</b>

1. Total temporary disturbance acres differ from those presented in Table 3 by less than an acre due to rounding.

#### **6.1.8.3 Potential Impacts to State Sensitive Species**

The list of state sensitive wildlife species has not changed from RFA 5 and the same species are expected to occur. One of the nests identified during raptor nest surveys is occupied by a Swainson's hawk (*Buteo swainsonii*), which is a state sensitive species. The active Swainson's hawk nest is approximately 0.25 miles from proposed ground disturbance. In accordance with Condition 53, the Certificate Holder will coordinate with ODFW and ODOE to determine if construction restrictions will apply in the vicinity of the nest. Other than updated raptor nest occupancy information, no other information has been identified that will warrant a change in the discussion of impacts on state sensitive species presented in RFA 5.

#### ***6.1.8.4 Measure to Avoid, Reduce, or Mitigate Impacts***

Impacts to non-ag habitat will be restored per the Revegetation Plan, included as part of RFA 5. The Certificate Holder performed surveys in 2021 in anticipation that these surveys will constitute preconstruction surveys if construction begins in early 2022. If that is the case, the findings of the 2021 surveys will inform any fish and wildlife compliance needs associated with the Site Certificate Conditions. Otherwise, preconstruction surveys will be performed in 2022. The Certificate Holder proposes that EFSC considers the habitat enhancement actions and conservation actions performed on the existing 50-acre Habitat Mitigation Area to be more than adequate to account for the initial 11 acres of mitigation calculated for RFA 4 for which the Habitat Mitigation Area was established as well as the additional acreage of disturbance to grasslands calculated for this RFA. Therefore, the Certificate Holder does not propose any additional habitat mitigation.

#### ***6.1.8.5 Monitoring Program***

One year of post-construction mortality monitoring will be performed in accordance with the SWP Wildlife Monitoring and Mitigation Plan (WMMP; included as part of RFA 5) to ensure that established fatality thresholds are not exceeded after repowering. If necessary, the Certificate Holder will coordinate with the ODOE regarding appropriate mitigation measures. Note that the Certificate Holder will update the WMMP and provide it to ODFW prior to construction. The WMMP will include updated protocols that reflect current industry standards for post-construction mortality monitoring.

Monitoring of the revegetation of three acres of grassland habitat will follow the monitoring procedures presented in the Revegetation Plan (Attachment P-4 of Exhibit P, RFA 5. If an area is not trending toward meeting the success criteria described, the Certificate Holder may conclude that revegetation of the area was unsuccessful and additional measures may be implemented at the existing HMA to address the loss of habitat quantity and quality.

#### ***6.1.8.6 Conclusion***

All previously imposed Council conditions for fish and wildlife habitat and applicable Threatened and Endangered Species conditions (see Table 5) apply to RFA 6. There will be no changes to the conditions, and the proposed changes to the facility do not affect the Certificate Holder's ability to comply with any of the other previously imposed site conditions for fish and wildlife habitat. RFA 6 will not alter the basis for the Council's previous findings. Therefore, for the reasons discussed above and subject to the Site Certificate conditions, the Council can find that the facilities, as proposed, comply with the Council's Fish and Wildlife Standard.

### ***6.1.9 Threatened and Endangered Species – OAR 345-022-0070***

The Council previously found the Certificate Holder has demonstrated an ability to construct, operate, and retire the Facility in compliance with Council standards and conditions of the Site Certificate, including the Threatened and Endangered Species Standard (OAR 345-022-0070). The Certificate Holders' assessment of the Facility's compliance with the Threatened and Endangered Species Standard was included as Exhibit Q of RFA 5.

As described for RFA 5, the two state-threatened or endangered species that may occur in the Exhibit Q analysis area include WAGS and Laurent's milkvetch (*Astragalus collinus* var. *laurentii*). Past surveys associated with the Facility identified WAGS in proximity to the transmission line corridor. RFA 6 does not propose any ground disturbing activities near the transmission line where the colonies were identified. The colonies will continue to be avoided per Condition 69. Surveys performed in 2018 for RFA 5 and 2021 for RFA 6 did not identify any WAGS colonies (per Condition 56). Laurent's milkvetch is not known to occur in the Exhibit Q analysis area (included as part of RFA 5). The Certificate Holder performed surveys for Laurent's milkvetch in July of 2021 in accordance with Condition 55 (see Attachment 7). No Laurent's milkvetch individuals or populations were found within the temporary disturbance footprint associated with RFA 6.

All previously imposed Council conditions for threatened and endangered species apply to RFA 6. There will be no changes to the conditions, and the proposed changes to the Facility do not affect the Certificate Holder's ability to comply with any of the other previously imposed site conditions for threatened and endangered species. RFA 6 will not alter the basis for the Council's previous findings. Therefore, for the reasons discussed above and subject to the Site Certificate conditions, the Council can find that the facilities, as proposed, comply with the Council's Threatened and Endangered Species Standard.

#### **6.1.10 Scenic Resources – OAR 345-022-0080**

The Council previously concluded that the Facility complies with the Scenic Resources Standard. OAR 345-022-0080 requires the Council to determine that the design, construction, and operation of the proposed Facility will not have a "significant adverse impact" to any significant or important scenic resources and values in the analysis area. The previous scenic resource analysis for RFA 5 (Exhibit R) found nine applicable federal and local land use management plans within the 10-mile analysis area of the Facility. Based on the Certificate Holder's review of applicable land use plans, four of the nine plans have been updated since RFA 5 (NPS 2021, Umatilla County 2018, Walla Walla County 2019, WDFW 2019; additional resources reviewed include City of Adams 2003, City of Athena 1998, City of Helix 2006, City of Milton-Freewater 1999, City of Milton-Freewater 2020, City of Weston 2015, Umatilla County 1984, and WDFW 2021). The updates did not identify additional scenic resources or include provisions that will warrant changes to the previous analyses of scenic resources.

Per Exhibit R of RFA 5, the previous repowering proposal (up to 440 feet total turbine height) increased the Facility visibility for 4<sup>8</sup> out of the 9 applicable land use management plan areas (Helix, Athena, Weston, and Adams, Oregon) from what was previously approved for in RFA 4. The proposed repowering and battery storage installation of RFA 6 will impact the same resources. The proposed wind turbine repowering will increase the maximum blade tip height from 440 to 499

---

<sup>8</sup> The previous Exhibit R analysis mistakenly used a turbine height of 440 meters as opposed to 440 feet. Therefore, the finding that 3 out of the 9 applicable land use management plan areas experienced increased Facility visibility has been updated to the correct amount of 4 out of the 9 applicable land use management areas.

feet and potentially add up to two new turbines (and replacement of existing Siemens turbine 11 to GE technology, as proposed by repowering configuration Option B). As stated in the Protected Areas section, the certificate holder completed a comparative ZVI analysis, presenting the incremental increase in visibility of the existing 440-foot wind turbines compared to 499-foot wind turbines based on Option B. The closest town, Helix, is approximately 4 miles away (following a straight line), and the turbines will not dominate the landscape due to the distance and intervening manmade and natural features in the fore- and middleground. Additionally, there will be a minor increase in visibility (an addition of two turbines visible) at each of the three scenic resources within 10-miles of the Site Boundary due to the potential addition of two new turbines (as proposed by repowering configuration Option B; considered worst-case scenario; see Figure 4.3 and 4.4). Note that the battery storage will be collocated with the existing substation and will generally be indiscernible compared to the proposed and existing Facility turbines. Figure 4 demonstrates that the area where the Facility will be newly visible in each of the cities is very small. The views from all four cities are already altered by wind turbines; therefore, views from Helix, Athena, Weston, and Adams will not be significantly impacted by installation of larger turbine blades and potential addition of turbines at the Facility.

The Council previously imposed Condition 37 which lists mitigation measures to reduce visual impacts from the Facility; this condition will continue to apply to RFA 6. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore and with continued implementation of Condition 37, RFA 6, as proposed, does not alter the basis for the Council's prior findings that the Facility complies with the Scenic Resources Standard.

### ***6.1.11 Historical, Cultural and Archaeological Resources - OAR 345-022-0090***

The Council previously concluded that the Facility complies with the Historical, Cultural and Archaeological Resources Standard. OAR 345-022-0090 requires the Council to determine that the design, construction, and operation of the proposed Facility will not have a significant adverse impact on historic, cultural, or archaeological resources that have been listed on, or will likely be listed on the National Register of Historic Places (NRHP); 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); and for a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c). The previous historic, cultural and archaeological resource analysis for RFA 5 (Exhibit S) found a single archaeological site (35UM 00343) within the Analysis Area. Consistent with the Analysis Area for RFA 5, the Analysis Area for RFA 6 is defined as the area that could be temporarily disturbed during repowering.

Several preconstruction surveys were conducted for the existing Vansycle/Stateline projects, and archaeological monitoring was conducted during construction. An updated desktop review via Oregon SHPO's Oregon Archaeological Records Remote Access (OARRA) and Historic Sites

databases was conducted to confirm the continued validity of surveys conducted for previous applications and amendments associated with the previous Stateline/Vansycle projects. Five cultural resource surveys and one archaeological monitoring report were identified in OARRA as covering the Analysis Area. One archaeological resource, identified by surveys and monitoring conducted for the previous Vansycle/Stateline projects, is within the Analysis Area: 35UM 00343. Previous project-related surveys and studies are listed in Table 7. Private lands comprise the entire land base of the Facility; therefore, no public lands are proposed for repowering activities associated with the Facility.

**Table 7. Previously Conducted Cultural Resource Surveys Covering the Analysis Area**

<b>OARRA Survey #</b>	<b>Author/Date</b>	<b>Report Title</b>	<b>Associated Project Name and Phase</b>
16315	James C. Bard & Robin McClintock (CH2M Hill) and Thomas Bailor and Jeff Van Pelt (CTUIR) 1997	<i>Cultural Resources Assessment, Vansycle Wind Project, Umatilla County, Oregon (Draft)</i>	Vansycle I (preconstruction survey)
18489	James C. Bard & Robin McClintock (CH2M Hill) 2000	<i>Cultural Resources Assessment, Stateline Wind Project, Umatilla County, Oregon, Walla Walla County, Washington</i>	Stateline 1 (preconstruction survey)
18475	Shawn Steinmetz (CTUIR) 2003	<i>Stateline Wind Project Phase 2a and 3 Cultural Resource Inventory, Walla Walla County, Washington and Umatilla County, Oregon</i>	Stateline 2a and 3 (preconstruction survey)
22383	James J. Sharpe, James C. Bard, and Robin McClintock (CH2M Hill) 2008	<i>Cultural Resources Survey for the Helix Wind Power Facility, Umatilla County, Oregon</i>	Helix (preconstruction survey)
22471	Shawn Steinmetz (CTUIR) 2009	<i>Archaeological Investigation for the Stateline 3 Wind Project, Umatilla County, Oregon and Walla Walla County, Washington</i>	Stateline 3 (preconstruction survey)
23367	Amy K. Senn (CTUIR) 2010	<i>Results of the Vansycle II Wind Project, Umatilla County, Oregon, and Walla Walla County, Washington</i>	Vansycle II (construction monitoring)

CTUIR = Confederated Tribes of the Umatilla Indian Reservation

During the desktop review for RFA 6, two small areas of the potential disturbance area were found to extend beyond previously surveyed areas, as indicated in OARRA (see Map 4 in Confidential Attachment 8). The easternmost area is 0.12-acre and the westernmost is 0.5-acre. These areas are within existing and maintained access roads associated with the existing project. These areas were disturbed during construction of the previous projects and were monitored by CTUIR Professional Archaeologists for archaeological resources at that time (Steinmetz 2009). No cultural resources

were identified in these areas during monitoring. Since the areas were subjected to monitoring and no resources were identified, the likelihood of encountering cultural resources in these areas is considered low to minimal.

One archaeological site, 35UM 00343, is within the Analysis Area of RFA 6 (Confidential Attachment 8). The site is unevaluated for NRHP-eligibility. The resource is the historic railroad grade of the Oregon and Washington Territory Railroad. The railroad is decommissioned, and portions incorporated into existing agricultural fields and area roads. In the Analysis Area, it is a graded road. The site was monitored during the 2009 construction phase of the Stateline 3 project, when a minor amount of associated historic artifacts (brick fragment, railroad spike, bolt, and miscellaneous metal) was identified within the road/former railroad grade immediately outside the Analysis Area. CTUIR recommended that alterations to 35UM 00343 consistent with its current use at the time (a road) will not be a significant impact (Steinmetz 2009). The Final Order on Amendment 4 documented the Certificate Holder's agreement to implement the measures recommended by CTUIR, along with modified Conditions 75 and 76. Temporary disturbances to the site planned as part of RFA 6 will remain consistent with its current use as a road. As such, consistent with Amendment 4, RFA 6 will not have a significant impact on 35UM 00343.

Isolated find (archaeological object) 092312-08-I, an NRHP-ineligible basalt projectile point fragment in an agricultural field, is 46.75 meters from a proposed new access road. Archaeological site 35UM 00435, historic refuse scatter unevaluated for the NRHP in an agricultural field, is 743.35 feet from the disturbance footprint of a turbine pad. Both resources are avoided by the Facility by more than 30 meters (Site Certificate Condition 75) and will not be impacted.

The visual effects of the Facility to historic properties in the study area and surrounding area were not addressed in the original approved application or past amendments. RFA 6 includes a minor 59-foot height increase due to larger turbine blades and potential addition of up to two turbines (as proposed by repowering configuration Option B; see Section 3.0). Viewshed analyses conducted for RFA 6 show that the viewshed expansion as a result is very minimal. The nearest recorded historic buildings are over 3 miles to the southwest of the Analysis Area, in Helix, which will experience minor increases to the viewshed (Figure 4). As referenced, "recorded historic buildings" is inclusive of any and all historic buildings regardless of register status. Buildings of historic age are indeed present within the Site Boundary and within 1 mile of the overall Stateline Wind Facility, which is inclusive of the repower activities proposed in RFA 6 (see Figure 6, Noise Sensitive Receptors).

A desktop review for historic buildings was completed for the Analysis Area and a 1-mile buffer. Based on a review of aerial imagery and county tax assessments, a total of four tax parcels contained historic buildings or structures. The four tax parcels with historic buildings include residences that have been remodeled, have new owners, or contain a mixture of buildings of differing ages (Table 8). All of this impacts the setting, feeling, workmanship, design, materials, and association of the property's integrity. A historic inventory survey of the buildings on the four tax parcels was completed on November 4, 2021. The survey documented and evaluated the historic buildings for listing on the NRHP and assessed the potential impacts of the Facility on the Historic Properties (Attachment 9). The property located at 46847 Raymond Road was found to be

potentially eligible for listing on the NRHP under criterion D, due to its potential to yield information towards local history (Attachment 9). This property is not located within the Analysis Area or its viewshed. The closest turbines that will be repowered are located 5 miles to the northwest and southeast. The wind turbines that can be seen from the property are part of a different facility. There will be no direct or indirect impacts to the integrity of this property.

Repowering the Facility is not anticipated to have an impact on the integrity of any eligible historic building or structure within the Analysis Area or 1-mile viewshed. There are no direct impacts to these resources, and there will be no indirect impacts to the eligible historic property. Nevertheless, the visual effect to the setting from the repower is expected to be negligible given that most (or all) of repower development will be the minimal enlargement of the proposed turbine, mainly the blades where the increased length will not be noticeable because they will be spinning. Moreover, given the presence of the adjacent existing wind facilities - Stateline 1 & 2 composed of 186 wind turbines and Combine Hills Wind Farm with approximately 63 turbines (total of over 249 turbines in the immediate area not including Vansycle II), the setting, landscape, and viewshed is already impacted by the extant presence of wind turbines.

**Table 8. Desktop Survey of the Historic Buildings**

<b>Property/ Account ID</b>	<b>Address</b>	<b>Year Built</b>	<b>Building Type</b>	<b>Landowner</b>	<b>Historic Landowners</b>
104481	46847 Raymond Road, Helix, OR 97835	1900 (remodeled 1950)	One-story residence	Raymond and Son Inc.	Addie Raymond and R. Raymond (Ogle 1914 map)
		1953	GP building		
		1900 (remodeled 1956)	One-story residence		
		1956 (remodeled 1960)	GP building		
		1961	One-story		
		1961	Loft barn		
		1975	Hay cover		
		1990	Metal component building		
		1997	Metal component building		
119800	81474 Waterman Road, Athena, OR 97816	1963 (remodeled 1982)	One-story residence	Darla Clark	Raymond, Wagner, Waterman (Ogle 1914 map)
		1963	GP building		
		1963	Machine shed		
		1992	Machine shed		
		1992	Machine shed		
		2005	GP shed		
		1992	Lean-to		
119815	81244 Gerking Flat Road, Athena, OR 97813	1920 (remodeled 1956)	One-story residence	Sunny Cove Ranches Inc.	J. Walker, A. McIntyre (Ogle 1914 map)
		1953	Loft Barn		
		1953	Machine shed		
		1982	Machine shed		
119811	81132 Gerking Flat	1915 (remodeled 1951)	One-story residence	Froese, Paul W.	McDonald, McIntyre, Wagner (Ogle 1914 map)
		1950	Truck scales		

<b>Property/ Account ID</b>	<b>Address</b>	<b>Year Built</b>	<b>Building Type</b>	<b>Landowner</b>	<b>Historic Landowners</b>
RD, Athena, OR 97816	1950	Truck scales	Fuel Tank 4 Grain bins		McIntyre (Metsker 1934 map)
	1950	Fuel Tank			
	1994	4 Grain bins			

Additional unidentified cultural resources may exist in the Analysis Area, although the potential for this is considered low based on the history of surveys, monitoring, and disturbance from agriculture and construction of the existing facility. Disturbance of previously unidentified cultural resources could result in significant impacts. Therefore, the Certificate Holder implemented Site Certificate Conditions 75, 76, and 143. Site Certificate Condition 75, which addresses posting of barriers and implementation of buffers (30-meters) around recorded cultural and archaeological sites, is also applicable to cultural resources, but is not applicable to the Analysis Area for RFA 6. Although there is one archaeological site within the Analysis Area that cannot be avoided (Attachment 8), the Facility will not have a significant impact on the resource and therefore barriers around this site will not be posted during repowering. The nearest archaeological resources outside of the Analysis Area, 092312-08-I and 35UM 00435, are more than 30 meters away and will not be impacted. The nearest historic sites are over 3 miles from the Analysis Area and indirect visual effects from the Facility will not be significant. To meet obligations under Conditions 75 and 76, the Certificate Holder prepared a cultural resource monitoring plan which it submitted to ODOE in May 2009 as part of RFA 4. The plan contains three basic components that will reduce potential impacts to cultural resources identified and those not discovered during previous field surveys: Cultural Resources Awareness Training for Construction Crews; Unanticipated Discovery Protocol; and Monitoring. Although construction monitoring is not recommended for activities proposed under RFA 6, due to the low to minimal potential for cultural resources in the Analysis Area, the awareness training and unanticipated discovery protocols from the monitoring plan will be implemented to meet the same conditions as part of RFA 6. See Attachment 10 for an updated unanticipated discovery protocol.

Condition 143 was implemented due to the changes proposed by RFA 5. The condition includes the implementation of environmental awareness training for all construction personnel and adherence to the Unanticipated Discovery Protocol. Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 143 to reflect the changes proposed by RFA 6 (see Section 5.0).

RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). The proposed amendment makes no changes that will alter the basis for the Council's earlier findings, or its conclusion that the Facility will not likely result in an adverse impact to any historical, cultural and archaeological resources in the Analysis Area, and therefore the amendment request meets the requirement of the Historical, Cultural and Archaeological Resources Standard.

### **6.1.12 *Recreation – OAR 345-022-0100***

The Council previously found that the Facility will not result in direct or indirect loss of any of the recreational opportunities identified as important within the 5-mile analysis area (see Exhibit T of RFA 5; Final Order on Amendment 5). The Recreation Standard requires the Council to find that the design, construction, and operation of a facility will not likely result in significant, adverse impacts to important recreational opportunities. Therefore, the Council's Recreation Standard applies to only those recreation areas that the Council deems important. No recreational lands other than the local park and recreation facilities in the unincorporated community of Touchet (in Washington) have been identified within the analysis area (BLM 2021, Google Earth 2021, ODFW 2017, ODFW 2021, OPRD 2021, ORBIC 2015, Umatilla County [no date], Umatilla County 2018, Walla Walla County 2019). Per the Final Order on the Application, the Council determined that although these recreational opportunities were deemed important, the Facility will not interfere significantly with the recreational activities that occur there. Based on the Certificate Holder's review, the battery storage, upgraded turbine locations and corresponding 5-mile analysis area offer no new recreational opportunities. The Council did not impose any conditions related to this standard. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). The proposed amendment makes no changes that will alter the basis for the Council's earlier findings, or its conclusion that the Facility will not likely result in a significant adverse impact to any important recreational opportunities in the analysis area, and therefore the amendment request meets the requirement of the Recreation Standard.

### **6.1.13 *Public Services – OAR 345-022-0110***

The Council relied on information provided in the ASC and in subsequent amendment requests to conclude that the Public Services Standard was met for the existing Facility. The Council's Public Services Standard requires the identification of likely, significant, adverse impacts caused by the Facility on the ability of public and private service providers to supply sewer and sewage treatment, water, stormwater drainage, solid waste management, housing, traffic safety, police and fire protection, health care, and schools. The Facility is already constructed such that the Certificate Holder met all preconstruction and construction conditions, and will continue to meet construction measures, as they apply to battery storage installation and upgrading (see Table 5), and operation conditions as documented through annual reporting (Condition 127). The battery storage installation as well as upgrading and operation of the turbines does not affect the Certificate Holder's ability to comply with the Site Certificate conditions as written (Conditions 33, 35, 48, 85, 88, 96, 103, 130, and 144). Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 144 to reflect the changes proposed by RFA 6 (see Section 5.0). Condition 144 includes several traffic reduction measures including the usage of traffic diversion equipment and flagging.

The analysis conducted in Exhibit U of RFA 5 was reviewed to assess relevant changes to the affected public and private services providers for the proposed RFA 6 Facility modifications. No changes were identified for the affected sewer and water services, stormwater drainage, solid waste management, police and fire protection, health care, and schools. Since Exhibit U was prepared in 2018, updated population and housing supply and availability data and new traffic count and pavement condition data have been published for the Analysis Area. Tables U-1 and U-2 in Attachment 11 provide updated population and housing supply and availability data from the 2020 census for the four-county area of influence as analyzed in Exhibit U of RFA 5 (Umatilla County in Oregon and Walla Walla, Benton, and Franklin Counties in Washington) (U.S. Census Bureau 2020). Traffic volumes and pavement conditions were also updated in Tables U-3 and U-4 in Attachment 11 (ODOT 2016, 2017, 2018, 2019, 2020a, 2020b, 2021). The population of the four-county area of influence increased by 13 percent between 2010 and 2020, compared to a statewide increase of 10.6 percent in Oregon and 14.6 percent in Washington. While population increased in all four counties, growth in Umatilla, Benton, and Franklin counties was slower from 2010 to 2020 as compared to the previous decade (2000-2010). There was a slight increase in the number of total housing units across the four-county area of influence from 2010 to 2020 as compared to the 2016 estimates. The largest localized area of population and housing growth occurred in the Tri-Cities area (Pasco, Richland, and Kennewick) of Washington. Across the four-county area of influence, housing vacancy rates in 2020 ranged from 2.8 percent in Pasco, Washington to 22.1 percent in the small community of Helix, Oregon. While populations increased more than was estimated in Exhibit U of RFA 5, the four-county average housing vacancy rate of 6.1 percent is only slightly lower than the previous 2016 estimate of 7.2 percent. Traffic volumes on I-84 in the analysis area decreased from 2016 to 2020 by a range of 0.7 percent to 8.3 percent. Most of the traffic count points along OR 11 also decreased during the same timeframe. Pavement conditions on I-84 and OR 11 range from fair to very good. Since Exhibit U of RFA 5 was prepared, I-84 from milepost 204 to 2015 is no longer under construction and is rated in very good condition and pavement repairs are planned along I-84 from milepost 185 to 188 in January of 2024.

Although there are differences in the current conditions as described above, the proposed battery storage installation and upgrades to the turbines will not affect any aspect of the analysis (see Exhibit U of RFA 5; Final Order on Amendment 5) conducted to support issuance of the Site Certificate with regards to public services. The Facility is already constructed and is operational. The battery storage installation and upgrade work for the Facility will be short-term and temporary and the influx of workers necessary for the proposed RFA 6 Facility modifications will be less than what was previously evaluated in Exhibit U of RFA 5 and approved by the Council. The previously evaluated peak number of workers needed during construction will continue to represent a worst-case scenario related to impacts to public services. A maximum of 150 workers will be necessary, requiring 150 one-way worker trips per day. Additionally, the maximum number of haul truck trips per day will be 35 one-way trips. Based on the housing information and vacancy rate (see Table U-2 in Attachment 11), there is an adequate supply of local housing and temporary accommodations in the four-county area of influence for the expected construction Facility demand. Although traffic counts have decreased across most of the analysis area since 2016, the proposed construction

traffic trips still make up a small portion of the overall daily traffic counts on the state highway system. Existing county roadways included as part of the Facility transporter routes will experience an increase in traffic volumes during repowering, but roadway function is anticipated to remain acceptable. Delivery vehicles will be advised to avoid peak traffic hours (i.e., morning and evening commuting periods) of the surrounding communities to minimize effects of repowering.

Additionally, as described in Exhibit U of RFA 5, following repowering local roadways will be repaired to existing conditions or better.

No operations staff changes are expected following the installation of the battery storage and upgraded turbines, and therefore no new, permanent residents will require housing, schools, or other services. Therefore, the ability of communities to provide housing, police and fire protection, health care and school is not likely to be significantly impacted.

The addition of an energy storage system adds an additional aspect to the analysis for fire protection; however, existing Site Certificate conditions are sufficient to be meet the Public Services standard. In addition, the batteries at the energy storage site will be restricted from the public via a fenced and secured sited (per Condition 35), a site health and safety plan (Emergency Action Plan [as provided as Attachment H-3, Exhibit H of RFA 5]) if an emergency should occur (per Conditions 48 and 85), and be operated and maintained by trained and skilled operations personnel. Water has been shown to be the most effective fire suppressant for lithium ion batteries due to its ability to both extinguish the fire and remove excess heat. A water-carrying trailer will be placed near the battery storage and a water truck will be on-site while personnel are present in case of fire (per Conditions 34 and 128).

The proposed on-site fire protection measures are consistent with battery manufacturer recommendations and are consistent with fire codes. For example, for preconstruction compliance, the Certificate Holder provided ODOE a copy of the contract with the Milton-Freewater Rural Fire Department for fire protection services during construction and operation (per Condition 33). On-site employees will continue to receive annual fire prevention and response training by a professional fire-safety training firm (per Condition 96). Additionally, Condition 103 requires turbine parts to consist of fire-retardant materials, requires turbines to have built in fire prevention measures, and prohibits the storage of combustible materials. See Section 6.2.1, Public Health and Safety Standards for further discussion of fire safety adherence.

The lithium-ion battery storage system will be kept in a temperature-controlled facility with individual battery modules isolated to prevent the spread of fire if it were to occur. In addition, the following measures will be implemented for lithium-ion battery systems to minimize fire and safety risks:

- The battery systems will be stored in completely contained, leak-proof modules.
- O&M staff will conduct frequent (monthly) inspections of the battery systems according to the manufacturer's recommendations.
- Battery storage and fire protection systems will comply with applicable standards specified by the Umatilla County building department through the permitting process which will

include the 2014 Oregon Structural Specialty Code et. seq., as documented through the facility's building permit application(s).

- The Emergency Action Plan (as provided as Attachment H-3, Exhibit H of RFA 5) will be adhered to which includes response procedures in the event of an emergency, such as a fire (see Conditions 48 and 85).

Transportation of lithium-ion batteries is subject to 49 Code of Federal Regulations 173.185 – Department of Transportation Pipeline and Hazardous Material Administration. The regulations include requirements for prevention of a dangerous evolution of heat, prevention of short circuits, prevention of damage to the terminals, and require that no battery come in contact with other batteries or conductive materials.

Water during construction will likely continue to be provided by the City of Helix (see Section 6.3.3). During operation, water will continue to be provided by an on-site well, and sanitary water will be disposed of at on-site septic systems (see Conditions 129 and 130). If the turbine blades need to be washed, the certificate holder shall use no more than 500 gallons of water per turbine, trucked to the site by a contractor and purchased from a source with a valid water right (per Condition 88). No stormwater drainage services will be required. The proposed RFA 6 Facility modifications will generate solid waste including non-hazardous packaging associated with equipment, concrete waste, removed wind turbine blades, erosion control materials (i.e. straw bales and silt fencing), and assorted battery storage parts, which will be removed and recycled or taken to the Finley Buttes Regional Landfill in compliance with federal, state and local regulations (see Section 6.1.14). The battery storage installation and Facility upgrade will not significantly increase the amount of solid waste generated by the Facility during operation (see Section 6.1.14). Currently, turbine blades and other materials used for Facility maintenance are taken to the Finley Buttes Regional Landfill.

RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments); there are no other circumstances that will alter the basis for the Council's earlier determination. Therefore, the proposed amendment does not affect the Council's previous findings on public services. The Council adopted Site Certificate conditions to address Public Services and the Certificate Holder can comply with all Site Certificate conditions previously adopted by the Council for the Facility. Based upon the findings above, the Council can conclude that repowering the Facility complies with the Council's Public Services Standard.

#### **6.1.14    *Waste Minimization – OAR 345-022-0120***

The Council previously found that the accumulation, storage, disposal, and transportation of waste generated by construction and operation of the Facility are not likely to have an adverse impact on surrounding and adjacent areas and that the Facility complies with the Waste Minimization

standard (see Exhibit G and V of RFA 5; Final Order on Amendment 5). The Facility is already constructed such that the Certificate Holder met all preconstruction and construction conditions, and will continue to meet construction measures, as they apply to battery storage installation and upgrading, and operation conditions as documented through annual reporting (Condition 127). Site Certificate conditions to address the Waste Minimization Standard directly applicable to upgrading the turbines includes Conditions 71, 73, 74, 83, 86, 129, and 145. Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 145 to reflect the changes proposed by RFA 6 (see Section 5.0). Condition 145 requires third-party contractors to reuse and recycle turbine components to the extent practicable, as maintained and reported in annual reporting (Condition 127).

Construction of the modified turbine types and quantities will generally be the same as previously reviewed by the Council. Construction of the battery storage will generate similar types of waste as the turbines and substation components (see below). Therefore, no new types of solid waste will be generated from the construction of additional Facility components proposed under RFA 6. However, during operations, the battery storage may generate incidental waste from repair or replacement of electrical equipment and periodic replacement of the batteries. Lithium-ion batteries are expected to last between 15 and 20 years. The certificate holder anticipates a 15-year replacement cycle to be conservative.

Self-contained battery components (modules) will be removed and disposed of or recycled by a qualified vendor as needed to keep the facility operational. Battery modules will be transported intact. The modules will be transported to their final destination either for recycling or disposal as appropriate within the approved destination facility. No routine storage of spent batteries is anticipated.

No hazardous materials will be extracted or handled on-site. The only potentially hazardous materials associated with the battery storage are the battery cells themselves, which contain lithium-ion electrolyte gel or liquid. Handling of hazardous materials will follow the guidelines of Condition 32 in order to protect against accidental releases (see Section 6.2.1). Non-hazardous materials associated with the battery storage include the battery module cases; storage racks; electrical wiring to connect the battery modules to the switchgear; up to 72 metal 20-foot x 9-foot containers; 1 transformer and 1 bi-directional inverter for every 4 containers (18 total); one cooling system for each container; and electrical cabling to connect the container systems to the transformers/inverters and into the substation. A water-carrying trailer will be placed near the battery storage and a water truck will be on-site while personnel are present in case of fire (per Conditions 34 and 128; see Section 6.2.1). Existing measures are sufficient to prevent and contain spills (per Condition 32; see Section 6.2.1). Other non-hazardous, inert wastes types generating during battery storage installation and upgrading will include packaging associated with equipment, removed wind turbine blades, concrete waste, and erosion control materials (i.e. straw bales and silt fencing). Most solid waste will be removed from the site and reused, recycled, or disposed of at an appropriate facility and in compliance with U.S. Environmental Protection Agency standards. Packaging wastes, such as paper and cardboard, will be separated and recycled.

Removed wind turbine blades will be recycled, reused or sold as scrap metal, or otherwise lawfully disposed of, as determined by the turbine manufacturer. Wind turbines are primarily made of steel, fiberglass, and electronic components. With recent advancements in the reuse of fiberglass, now virtually all wind turbine components can be recycled. When the turbines are decommissioned for repowering, crews will separate the components and, if possible, recycle the pieces within the region of the Facility. The vendor will likely cut the blade(s) into three to four pieces onsite and then transport the pieces to a regional hub where they are ground into smaller pieces. The downsized material will then be processed and blended to make cement, replacing the sand, limestone and other inorganic materials that are typically used to make cement. Lastly, turbine gear oils and gearbox components for each repowered turbine will be reused as opposed to recycled.

Wood waste will be recycled or re-processed depending on size and quantity of scrap or leftover materials. Any non-recyclable wastes will be collected and transported routinely and regularly via truck to the Finley Buttes Regional Landfill. Solid waste from operations of the battery storage and upgrading the turbines will not substantially increase the existing amount of solid waste generated from the Facility. Water used during battery storage installation and upgrading will not be discharged to wetlands, lakes, rivers, or streams (per Condition 129). Battery storage and upgrade employees will adhere to the construction waste management plan as applicable (per Condition 71).

RFA 6 will not impact the Facility's ability to comply with existing Site Certificate conditions for waste management and is not anticipated to substantially increase the amount of solid waste and wastewater generated by the Facility during operations. This request does not seek to enlarge the existing Site Boundary, and the battery storage installation and upgrading activities will be short-term and temporary. Any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, Council may rely on its prior analysis to conclude that OAR 345-022-0120 is met and no changes to the Site Certificate conditions related to the Waste Minimization Standard are required.

## **6.2 Applicable Division 24 Standards**

### **6.2.1 *Public Health and Safety Standards for Wind Energy Facilities – OAR 345-024-0010***

The Council previously found that the Facility complies with the Public Health and Safety Standards for Wind Energy Facilities. The proposed changes will be contained within the existing Site Boundary. The repowering will occur to existing turbine structures, except for the replacement and addition of turbines as proposed by repowering configurations Options A or B; However, these new structures will be constructed on previously impacted construction areas and on previously approved alternate turbine locations (see Section 3.0). The battery storage will also be located on previously disturbed construction areas, collocated with the existing Facility substation. All changes

proposed by RFA 6 will remain within rural eastern Oregon, located entirely on private property, which restricts public access to turbine and other Facility component locations in compliance with Conditions 35 and 38 of the Site Certificate. For example, fencing and access gates will be required around dangerous equipment or portions of the site as feasible, including battery storage. Both the battery storage and turbine modifications will be designed with several levels of built-in safety and comply with the codes set forth by the Occupational Safety and Health Administration and American National Standards Institute. In general, because of the limited population base, the Facility is and will be after the addition of battery storage and proposed turbine modifications, operated to exclude members of the public from close proximity to the turbine blades and electrical equipment.

Per Condition 36, if any accidents or mechanical failures occur, they will be reported to ODOE and Umatilla County. Additionally, no changes to the transmission lines or substation are proposed, but both were designed and constructed in adherence with Condition 113 as part of preconstruction compliance to protect the public from exposure to electromagnetic fields. The collocated battery storage will be restricted from the public via a fenced and secured site (Condition 35; see Section 6.1.13). Lastly, handling of hazardous materials will follow the guidelines of Condition 32 in order to protect against accidental releases. As required by the condition, the Certificate Holder shall make sure that any oily waste, rags or dirty or hazardous solid waste will be collected in sealable drums and removed for recycling or disposal by a licensed contractor specializing in the proper recycling or disposal of hazardous and universal wastes. Lithium-ion batteries are considered “universal wastes” under U.S. Environmental Protection Agency rules. Note that the Certificate Holder shall not store fuel or chemicals onsite per Condition 31.

The fire risks for Facility configuration are similar to the risks previously considered by EFSC. Although the addition of battery storage adds an additional aspect to the analysis for fire protection, the existing Site Certificate conditions are sufficient to meet the Public Services standard and Public Health and Safety Standards. Site Certificate conditions addressing fire protection and response include Conditions 31, 33, 34, 48, 58, 96, 103, and 128. For example, Conditions 48 and 85 requires the preparation of a site health and safety plan, which includes the locations of fire extinguishers and appropriate fire response measures (Emergency Action Plan [as provided as Attachment H-3, Exhibit H of RFA 5]; see Section 6.1.13). Condition 58 requires all construction personnel to receive appropriate fire safety instruction from qualified local fire departments or fire-fighting trainers on the job site. Additionally, Condition 96 requires annual fire prevention and response training for all on-site employees, conducted in coordination with local agencies. Condition 35 also requires construction contractors to provide specific job-related training to employees, including safety equipment inspection. Although some of the changes requested by RFA 6 will result in new fire risks that will be different from the types of risk already considered by the Council, no new fire protection conditions are proposed due to the existing conditions being written broadly enough to address the proposed inclusion of battery storage.

Determinations of No Hazard to Air Navigation have been received for all previously constructed turbines at the Facility. Because the upgrading of the turbines will alter the existing turbine height,

the Certificate Holder submitted Notices of Alteration to the FAA on September 2, 2021, per previous Condition 146. ODOE and the Oregon Department Aviation were also provided this documentation on September 9, 2021. Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Condition 146 to reflect the changes proposed by RFA 6 (see Section 5.0).

The proposed modifications to the turbines structure will result in a maximum blade tip height that is lower than most turbine dimensions that are currently approved by EFSC. Similarly, RFA 6 requests a modified minimum blade tip clearance that is higher than the minimum blade tip clearance currently approved for most facilities under EFSC jurisdiction. The battery storage will be collocated with the existing substation, both prohibiting public access. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Thus, the changes described in RFA 6 will not alter the basis for EFSC's earlier findings, nor change the Certificate Holder's ability to comply with the intent of any requirements and conditions issued by EFSC regarding public health and safety. Therefore, EFSC may find that the Public Health and Safety Standard for Wind Energy Facilities is satisfied.

### ***6.2.2 Siting Standards for Wind Energy Facilities – OAR 345-024-0015***

The Facility is operational, with existing access roads that will be used for RFA 6-related battery storage installation, repowering and operations (per Condition 44). There will be no changes to the existing substation or transmission line nor to the previously approved Site Boundary. Raptors and sensitive species have been considered as part of RFA 6 as previously described in Exhibits P and Q of RFA 5. As described in Exhibits L and R of RFA 5, although the existing turbines will have an increased height, the changes to visual impact on protected areas or public viewing areas will not be significant. Battery storage will add new Facility infrastructure but will generally be indiscernible compared to the existing and repowered Facility turbines. Proposed changes will not significantly affect wetlands or other waters of the state because construction related to RFA 6 will avoid impacts to jurisdictional wetlands and waters (see Exhibit J of RFA 5 and Attachment 12, Wetlands and Waters Survey Memo). There will be no changes to lighting as part of RFA 6 other than those that may be required by FAA although changes are not anticipated. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, EFSC may find that the Siting Standard for Wind Energy Facilities is satisfied.

## **6.3 Other Standards and Laws**

### ***6.3.1 Noise Control Regulations – OAR 340-035-0035***

The Certificate Holder addressed compliance with the ODEQ noise regulations in Exhibit X of RFA 5. The requirements of OAR 340-035-0035(1)(b)(B)(iii) apply to noise levels generated by a “wind energy facility.” Therefore, the Facility is reviewed under OAR 340-035-0035(1)(b)(B)(iii). Under the regulation, the noise generated by a new wind energy facility located on a previously unused site must comply with two tests: the “ambient noise degradation test” and the “maximum allowable noise test”; however, if a wind energy facility is planned on a previously used site, then it must just demonstrate compliance with the “maximum allowable noise test”. Since this is a repower project, it will be constructed on a previously used site.<sup>9</sup>

OAR 340-035-0035(5)(g) specifically exempts noise caused by construction activities. As reviewed by the Council in RFA 5, upgrading will produce localized, short-duration noise levels similar to those produced by any large construction project with heavy construction equipment. The construction of the Facility may cause unavoidable noise impacts that could be loud enough at times to temporarily interfere with speech communication outdoors and indoors with windows open. The maximum construction noise level (at a distance of 50 feet from noise-producing equipment) anticipated at any of the repower layouts or the battery storage is 100 dBA. Noise levels resulting from the construction activities will vary significantly depending on several factors such as the type and age of equipment, specific equipment manufacturer and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. To reduce noise impacts at nearby NSRs, the Council prescribed Site Certificate Condition 78 to confine the noisiest operation of heavy construction equipment to daylight hours, Monday through Friday. Due to the infrequent nature of loud construction activities at the site, the limited hours of construction and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be a less than significant impact.

The Council previously imposed Site Certificate Conditions 120, 133, and 148, which requires that the final design locations, sound power levels, noise analysis, and noise easements be provided to ODOE to demonstrate that the Facility complies with ODEQ’s noise control standards in OAR 340-035-0035. Additionally, Condition 147 requires staging areas to be located in areas of minimal impact and that landowners within 1-mile of the Site Boundary are notified prior to construction (implemented as part of Amendment #5). Note that the Certificate Holder does not propose to add any new conditions, rather proposes updates to Conditions 147 and 148 to reflect the changes proposed by RFA 6 (see Section 5.0). As originally proposed and amended, the Council concluded that the Facility, subject to site certificate conditions, will comply with the applicable State noise regulations.

---

<sup>9</sup> According to ODOE’s findings for the Stateline Wind Project, “...the Council assumes that because the facility is currently in operation and has been in operation for more than 10 years, the site, could be characterized as previously used – and the standards that apply to a previously used site could be used.”

In support of RFA 6, an acoustic assessment was conducted based on a layout of the battery storage and three different turbine configurations being considered for the Facility. The first of these is the Proposed (Base Case), or repowering all 43 Siemens turbines to 2.66-129 wind turbine models, while the other two options are:

- **Option A:** Turbine IDs 11, 12, and 13 will be converted to GE 2.3-116 (hub height up to 90 meters) and the remaining 40 turbines will be converted to Siemens 2.66-129 (hub height up to 90 meters).
- **Option B:** Addition of two new GE turbines (at previously approved ALT-1 and ALT-2 turbine locations) and conversion of existing Turbine ID 11 to GE 2.3-116 (hub height up to 90 meters), and repowering of 42 turbines to Siemens 2.66-129 (hub height up to 90 meters).

All turbines were modeled at their respective maximum rated sound power, which is 107.5 dBA for the GE 2.32 MW wind turbine and 109.5 for the Siemens 2.66 MW wind turbine. In addition, a confidence interval, or k-factor, of 2 dB, was added to the nominal sound power level in the acoustic modeling analysis. The noise study results indicated compliance with the ODEQ 50 dBA L<sub>50</sub> limit at all 37 of the NSRs; however, noise levels at five of the 37 NSRs (IDs 21, 23, 33, 35 and 37) were predicted to exceed the ambient hourly L<sub>50</sub> ambient degradation limit of 26 dBA (with maximum noise levels of 49, 46, 42, 38, and 37 dBA, respectively; see Figure 6, Noise Sensitive Receptors). Noise waivers were obtained from NSR IDs 21, 23, 33 and 35. NSR ID 37 is a non-participant (11 dBA over the ambient hourly L<sub>50</sub> ambient degradation limit and 1.2 miles to the nearest sound source); therefore, a noise waiver will be obtained or a layout that complies with the standard will be developed during preconstruction compliance to address the predicted exceedance of the OAR ambient degradation standard at that location. The study showed that noise levels will be in compliance with the ODEQ ambient noise degradation rule at the remaining 32 of 37 NSRs.

In addition to the proposed changes to the wind turbine locations, the Certificate Holder is planning to add battery storage. The battery storage area will consist of a number of energy storage inverters, distribution transformers, and battery containers. All battery storage components were modeled at their respective maximum rated sound power, which is 91 dBA for the inverters, 71 dBA for the distribution transformers, and 74 dBA for the heating, ventilation, and air conditioning units. The energy storage inverters will potentially operate on a 24-hour basis and charge the batteries either by wind or from the grid and when converting the stored energy for generation onto the grid. These inverters will be actively cooled, with the cooling fans operation whilst the inverters were working. The battery storage containers will incorporate heating, ventilation, and air conditioning equipment to ensure the correct temperature was maintained within the containers during charging and discharge cycles. Sound profiles from the inverters, distribution transformers, and battery heating, ventilation, and air conditioning units were included in the acoustic modeling analysis and their contribution is reflected in the received sound level results at NSRs. No modifications to the substation are proposed.

Acoustic modeling results indicate that noise impacts at NSRs are expected to be relatively consistent with those reported in RFA 5. Per Site Certificate Conditions 134 and 147, the Certificate

Holder will maintain a compliant response system to address noise complaints. For the reasons discussed above and subject to the applicable conditions in the Site Certificate, the Council can find that the Facility as proposed will comply with the applicable noise control regulations.

### **6.3.2 Removal-Fill Law**

The Oregon Removal-Fill Law (ORS 196.795 through ORS 196.990) and Oregon Department of State Lands regulations (OAR 141-085-0500 through OAR 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." A removal-fill permit will not be needed for the Facility because the Facility, including with the proposed modifications, will not temporarily or permanently impact waters of the state such that a removal-fill permit is required (see Exhibit J from RFA 5 and Attachment 12, Wetlands and Waters Survey Memo). The Facility is currently operational; Construction of the Facility did not require a removal-fill permit. The Facility including, roads, road improvements, and construction activities were located outside of wetlands and jurisdictional waters. The Facility will utilize existing access roads and works spaces in upland areas that were permitted and used during the construction of the Facility. Access road deviations were determined to avoid wetlands through desktop evaluation. All jurisdictional wetlands and other waters will be avoided. The Council previously imposed Condition 118 to provide additional protection to waters of the state. The proposed addition of battery storage and repowering of the Facility does not seek to enlarge the existing Site Boundary, and therefore, the proposed change in RFA 6 does not alter the prior analysis and the Council can find that RFA 6 will not affect any "waters of the state."

### **6.3.3 Water Rights**

Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources Department administers the appropriation of water rights and regulates the use of the water resources of the state. The proposed Facility modifications do not substantially change construction or operation water usage or sources approved for use at the Facility. The Facility will use a small amount of water for road and earthwork compaction during the battery storage installation and repower phase, as well as for dust suppression. During the operations phase, a limited amount of water will be used for sanitary purposes. Water for the Facility will continue to be sourced primarily from the City of Helix (see Exhibit O from RFA 5); therefore, no new water permit or water right will be required. The Council did not impose any conditions related to this standard. Thus, the Council can conclude that addition of battery storage and repowering the Facility will continue to comply with the applicable regulations pertaining to water rights.

## **7.0 Property Owners Located within or Adjacent to the Site of the Facility – OAR 345-027-0360(1)(f)**

The property owner list is provided in Attachment 13.

## **8.0 Conclusion**

For the reasons stated above, the Certificate Holder respectfully requests approval of RFA 6.

## **9.0 References**

Bard, James C., and Robin McClintock. 2000. Cultural Resources Assessment, Stateline Wind Project, Umatilla County, Oregon, Walla Walla County, Washington. CH2M Hill, Portland, Oregon. Submitted to FPL Energy, Inc., Juno Beach, Florida, and Bonneville Power Administration, Portland, Oregon. Oregon SHPO Report #18489.

Bard, James C., Robin McClintock, Thomas Bailor, and Jeff Van Pelt. 1997. *Cultural Resources Assessment, Vansycle Wind Project, Umatilla County, Oregon* (Draft). CH2M Hill, Portland, Oregon, and Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to ESI Energy, Inc. North Palm Beach, Florida. Oregon SHPO Report #16315.

BLM (U.S. Bureau of Land Management). 2021. BLM Recreation Web Map. Accessed July 6, 2021. Available online at: <https://www.blm.gov/visit>

City of Adams. 2003. Comprehensive Plan, as amended 2003.

City of Athena. 1998. Comprehensive Plan, as amended 1998.

City of Helix. 2006. Comprehensive Plan, as amended 2006.

City of Milton-Freewater. 1999. Comprehensive Plan, as amended 1999.

City of Milton-Freewater. 2020. Parks and Recreation Master Plan. Accessed July 8, 2021. Available online at: <https://www.mfcity.com/community/page/master-plan>

City of Weston. 2015. Comprehensive Plan, as amended 2015. Accessed July 9, 2021. Available online at: <https://scholarsbank.uoregon.edu/xmlui/handle/1794/21889>

DOGAMI (Oregon Department of Geology and Mineral Industries). 2021a. Geologic Map of Oregon, Oregon Geologic Data Compilation release 7 (OGDC-7). Available online at: <https://www.oregongeology.org/geologicmap/index.htm>

DOGAMI. 2021b. Interactive Maps & Geospatial Data. Available online at: <https://www.oregongeology.org/gis/index.htm>

DOGAMI. 2021c. Publications Center. Available online at: <https://www.oregongeology.org/pubs/index.htm>

DOGAMI. 2021d. Statewide Landslide Information Database for Oregon (SLIDO). Available online at: <https://www.oregongeology.org/slido/data.htm>

DOGAMI. 2018. Oregon HazVu: Statewide Geohazards Viewer. Available online at: <https://www.oregongeology.org/hazvu/index.htm>

Franczyk, J. J., Madin, I. P., Duda, C. J. M., and McClaughry, J. D. 2020. Oregon geologic data compilation, release 7 [OGDC-7] (statewide): Oregon Department of Geology and Mineral Industries Digital Data Series OGDC-7, Esri geodatabase. Available online at: <https://www.oregongeology.org/pubs/dds/p-OGDC-7.htm>

Google Earth. 2021. Imagery date 4/14/21. Accessed July 5, 2021.

NPS (National Park Service). 2021. Superintendent's Compendium. Whitman Mission National Historic Site. February 5, 2021. Accessed July 9, 2021. Available online at: [https://www.nps.gov/whmi/learn/management/superintendents\\_compend.htm](https://www.nps.gov/whmi/learn/management/superintendents_compend.htm)

ODFW (Oregon Department of Fish and Wildlife). 2017. Oregon Hunting Map website. Accessed July 5, 2021. Available online at: <http://oregonhuntingmap.com/>

ODFW. 2021. ODFW Wildlife Areas June 2021. Accessed July 6, 2021. Available online at: <https://nrimp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=861.xml>

ODOE (Oregon Department of Energy). 2018. Final Order on Request for Amendment 2 to the Site Certificate. December 14, 2018. Available online at: <https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2018-12-14-WRW-AMD2-Final-Order.PDF>.

ODOE. 2019. Final Order on Request for Amendment 4 to the Site Certificate. November 22, 2019. Available online at: <https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2019-11-22-WRWAMD4-Final-Order-on-Request-for-Amendment-4.pdf>.

ODOT (Oregon Department of Transportation). 2016. Traffic Volumes on State Highways. 2016. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2017. Traffic Volumes on State Highways. 2017. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2018. Traffic Volumes on State Highways. 2018. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2019. Traffic Volumes on State Highways. 2019. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020a. Traffic Volumes on State Highways. 2020. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020b. 2020 Pavement Condition Report. Pavement Services Unit. January 2021. Accessed October 18, 2021. Available online at: [https://www.oregon.gov/odot/Construction/Documents/Pavement/2020\\_condition\\_report\\_maps.pdf](https://www.oregon.gov/odot/Construction/Documents/Pavement/2020_condition_report_maps.pdf)

ODOT. 2021. Region 5 Eastern Oregon. I-84: Stanfield to Pendleton Pavement Preservation. Accessed October 18, 2021. Available online at: <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20548>

OPRD (Oregon Parks and Recreation Department). 2021. Oregon State Parks – Find a Park.

Accessed July 6, 2021. Available online at:

[https://oregonstateparks.org/index.cfm?do=visit.dsp\\_find](https://oregonstateparks.org/index.cfm?do=visit.dsp_find)

ORBIC (Oregon Biodiversity Information Center). 2015. Oregon's Natural Areas Geodatabase.

October 2015. Oregon Biodiversity Information Center and the Oregon Parks and Recreation Department. An excerpt of the Oregon Stewardship Geodatabase (2015), which is itself modified from the US Geological Survey, Gap Analysis Program (GAP). November 2012. Protected Areas Database of the United States (PADUS), version 1.4. Accessed July 6, 2021. Available online at:

<http://spatialdata.oregonexplorer.info/geoportal/details;id=d2e844f814c34b4f97dc2ffe0eab7fd2>

Oregon.gov. 2019. Commercial Structures Code Program: Oregon Structural Specialty Code with amendments in 2021. Available online at: <https://www.oregon.gov/bcd/codes-stand/Pages/commercial-structures.aspx>

Senn, Amy K. 2010. *Results of the Vansycle II Wind Project, Umatilla County, Oregon, and Walla Walla County, Washington*. Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to NextEra Energy Resources, Eugene, Oregon. CTUIR Contract #328-009. Oregon SHPO Report #23367.

Sharpe, James J., James C. Bard, and Robin McClintock. 2008. *Cultural Resources Survey for the Helix Wind Power Facility, Umatilla County, Oregon*. CH2M Hill, Portland, Oregon. Submitted to Iberdrola Renewables, Inc., Portland, Oregon. Oregon SHPO Report #22383.

Steinmetz, Shawn. 2003. Stateline Wind Project Phase 2a and 3 Cultural Resource Inventory, Walla Walla County, Washington and Umatilla County, Oregon. Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to FPL Energy, Inc., Juno Beach, Florida. CTUIR Contract #344-02. Oregon SHPO report #18475.

Steinmetz, Shawn. 2009. *Archaeological Investigation for the Stateline 3 Wind Project, Umatilla County, Oregon and Walla Walla County, Washington*. Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to Tetra Tech, Inc., Rancho Cordova, California. CTUIR Contract #330-08. Oregon SHPO report #22471.

Tetra Tech. 2018. Final Request for Amendment #2 for the Wheatridge Wind Energy Facility. September 2018. Available online at: <https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2018-09-17-WRW-AMD2-RFA2.pdf>.

Tetra Tech. 2019. Final Request for Amendment #4 for the Wheatridge Wind Energy Facility. June 2019. Available online at: <https://www.oregon.gov/energy/facilities-safety/facilities/Facilities%20library/2019-07-01-WRW-AMD4-RFA.pdf>.

Umatilla County. No date. Parks. Accessed July 5, 2021. Available online at:  
<https://www.co.umatilla.or.us/departments/parks>

Umatilla County. 1984. Umatilla County Technical Report. Accessed July 9, 2021. Available online at: <https://scholarsbank.uoregon.edu/xmlui/handle/1794/8548?show=full>

Umatilla County. 2018. Umatilla County Comprehensive Plan. May 16, 2018. Accessed July 9, 2021. Available online at: [http://co.umatilla.or.us/fileadmin/user\\_upload/Planning/Umatilla\\_County\\_Ccomp\\_Plan.pdf](http://co.umatilla.or.us/fileadmin/user_upload/Planning/Umatilla_County_Ccomp_Plan.pdf)

U.S. Census Bureau. 2020. Decennial Census. Accessed October 18, 2021. Available online at: <https://data.census.gov/cedsci/all>

USGS (United States Geological Survey). 2021. The National Geologic Map Database. Available online at: [https://ngmdb.usgs.gov/ngmdb/ngmdb\\_home.html](https://ngmdb.usgs.gov/ngmdb/ngmdb_home.html)

USGS. 2018. U.S. Quaternary Faults. Available online at: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>

USGS. 2016. Search Earthquake Catalog. Available online at: <https://earthquake.usgs.gov/earthquakes/search/>

USGS. 2014. 2014 National Seismic Hazards Maps – Source Parameters. Available online at: [https://earthquake.usgs.gov/cfusion/hazfaults\\_2014\\_search/query\\_main.cfm](https://earthquake.usgs.gov/cfusion/hazfaults_2014_search/query_main.cfm)

USGS. 2004. Quaternary fault and fold database for the nation. Available online at: <https://pubs.usgs.gov/fs/2004/3033/fs-2004-3033.html>

Walla Walla County. 2019. Comprehensive Plan. August 5, 2019. Accessed July 7, 2021. Available online at: [https://www.co.walla-walla.wa.us/document\\_center/commdev/planning/comp%20plan/FINAL%20Walla%20Walla%20County%20Comp%20Plan%20\(080519\)%20\(complete\).pdf](https://www.co.walla-walla.wa.us/document_center/commdev/planning/comp%20plan/FINAL%20Walla%20Walla%20County%20Comp%20Plan%20(080519)%20(complete).pdf)

WDFW (Washington Department of Fish and Wildlife). 2019. Blue Mountains Wildlife Areas Management Plan. Accessed July 9, 2021. Available online at: <https://wdfw.wa.gov/sites/default/files/publications/02084/wdfw02084.pdf>

WDFW. 2021. McDonald Bridge Wildlife Area Unit. Accessed July 9, 2021. Available online at: <https://wdfw.wa.gov/places-to-go/wildlife-areas/mcdonald-bridge-wildlife-area-unit>

This page intentionally left blank

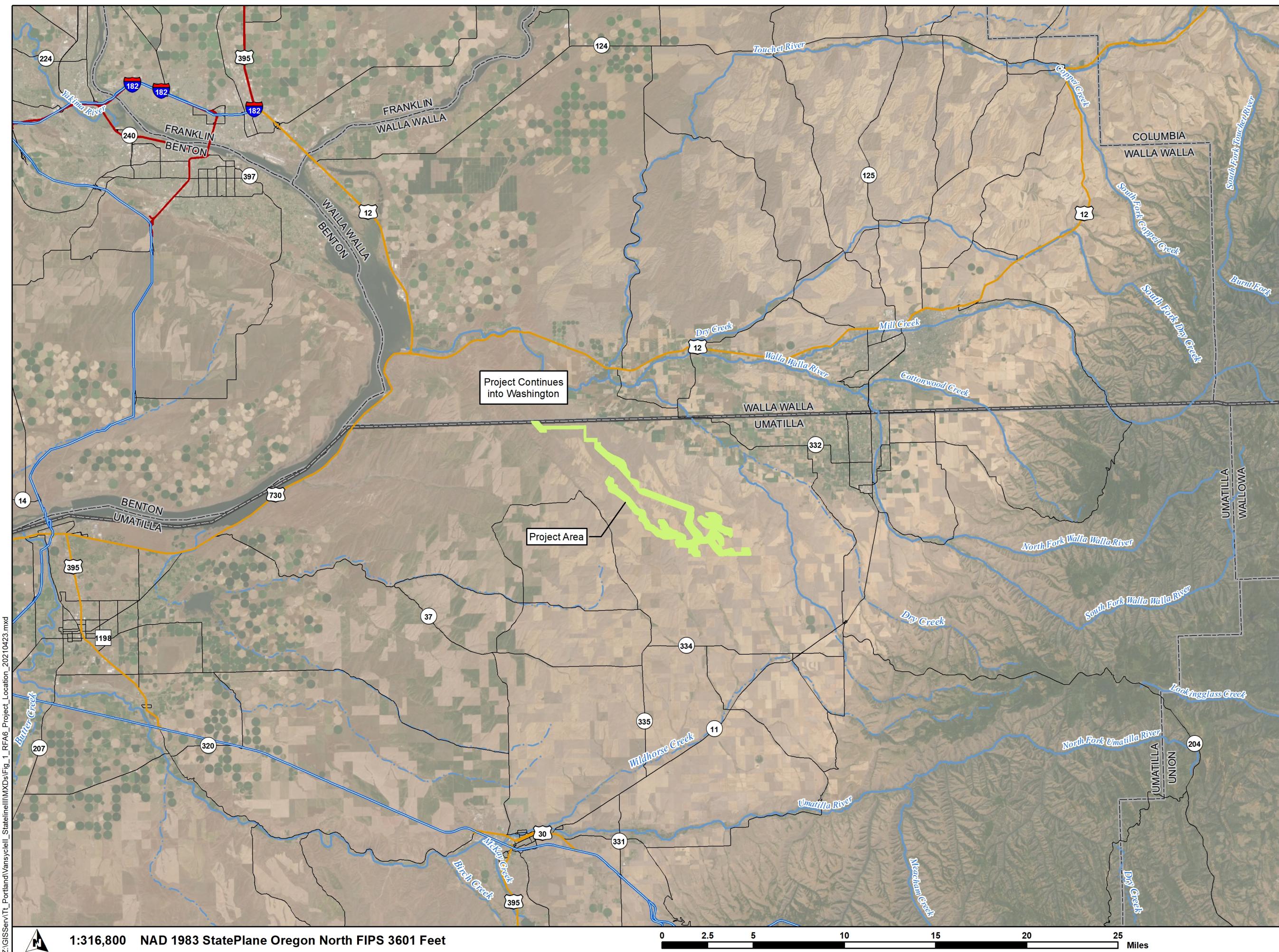
# **Figures**

## Stateline Wind Project Request for Amendment 6

## Vansycle II

**Figure 1**  
**Project Location**

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY WA



Stateline Wind Project  
Request for Amendment 6

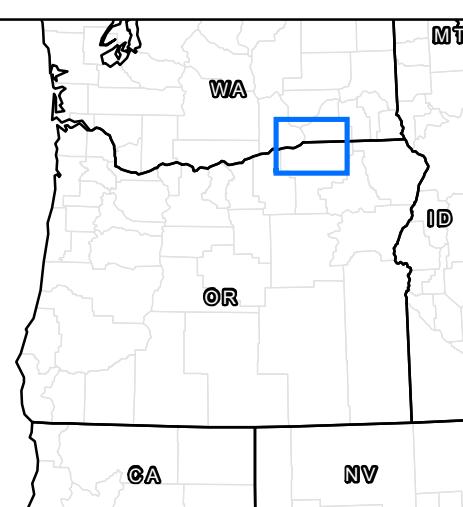
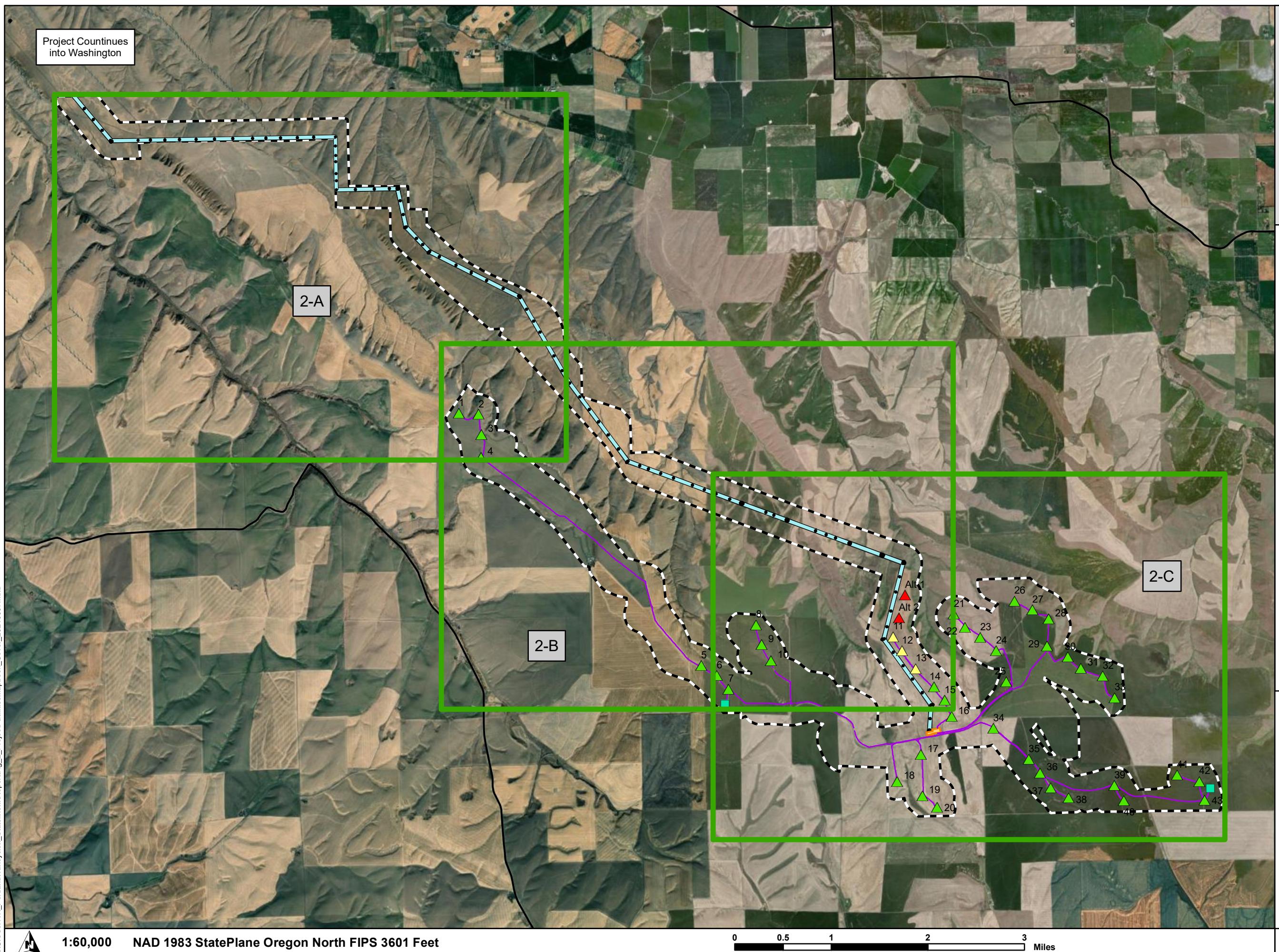
Vansycle II

Figure 2  
Project Facilities

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- Map Grid
- ▲ Existing Turbines (Repower Only)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- Met Tower
- Collection Line
- Substation
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary
- Secondary Road

TETRA TECH



Stateline Wind Project  
Request for Amendment 6

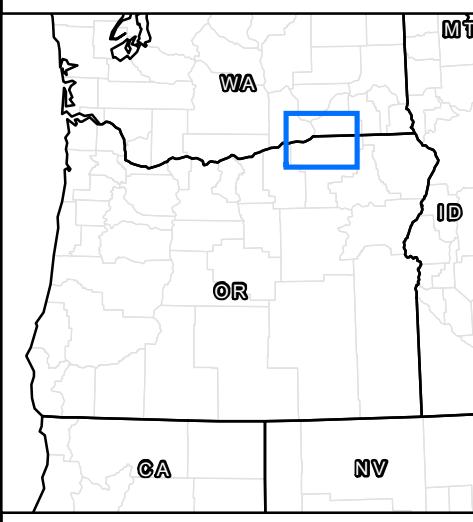
Vansycle II

Figure 2-A  
Project Facilities

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower Only)
- Collection Line
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

TETRA TECH



Stateline Wind Project  
Request for Amendment 6

Vansycle II

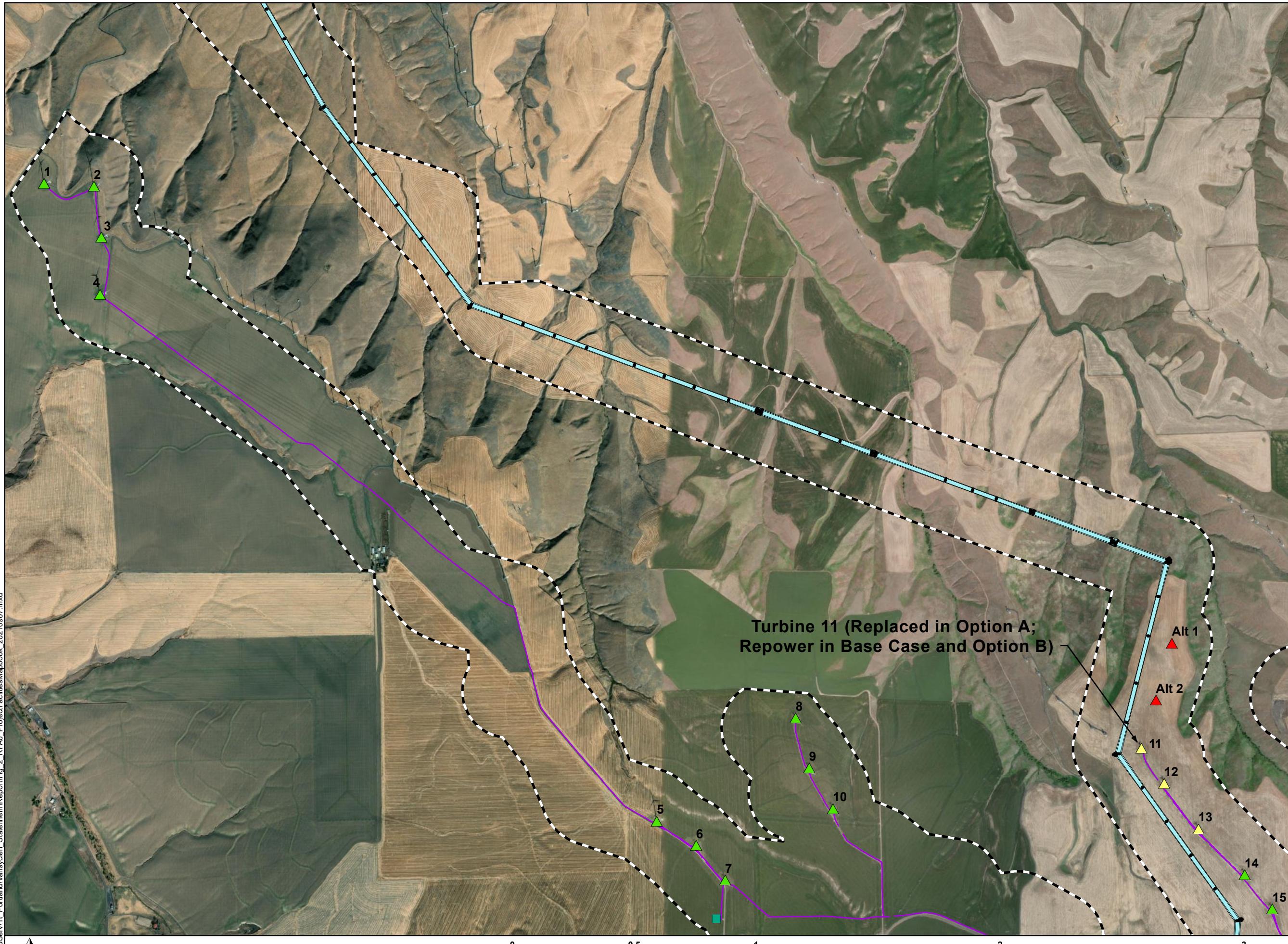
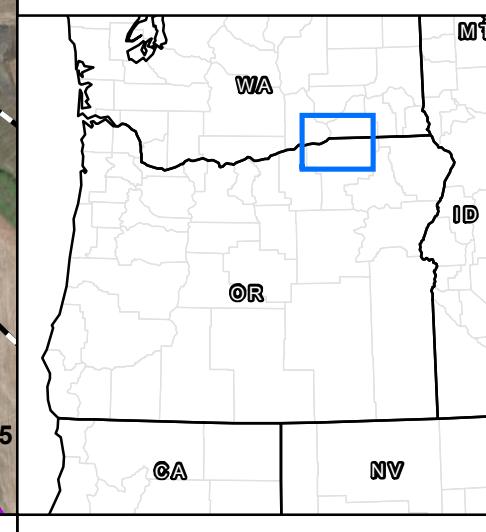
Figure 2-B  
Project Facilities

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower Only)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- Met Tower
- Collection Line
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

Turbine 11 (Replaced in Option A;  
Repower in Base Case and Option B)

TETRA TECH



1:24,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

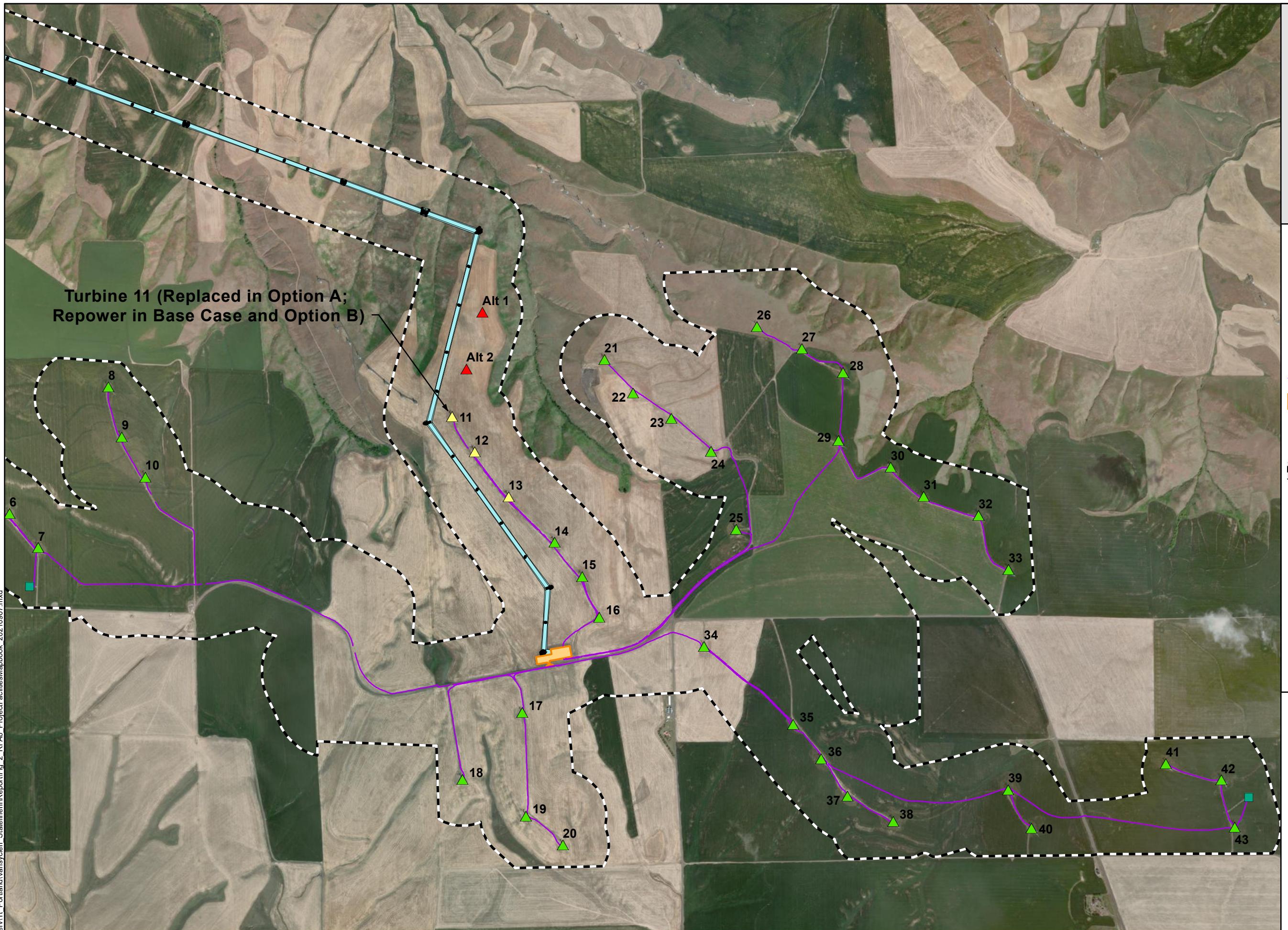
0 0.5 1 2 3 Miles

Stateline Wind Project  
Request for Amendment 6

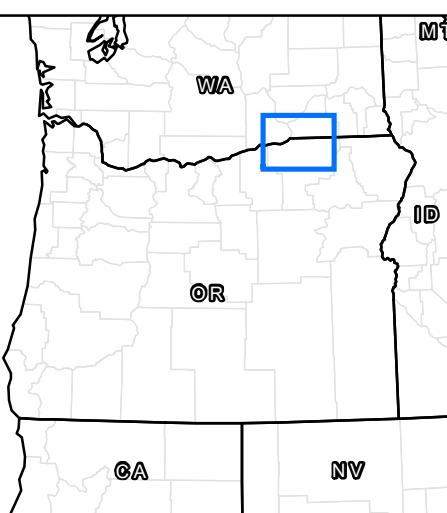
Vansycle II

Figure 2-C  
Project Facilities

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA



TETRA TECH

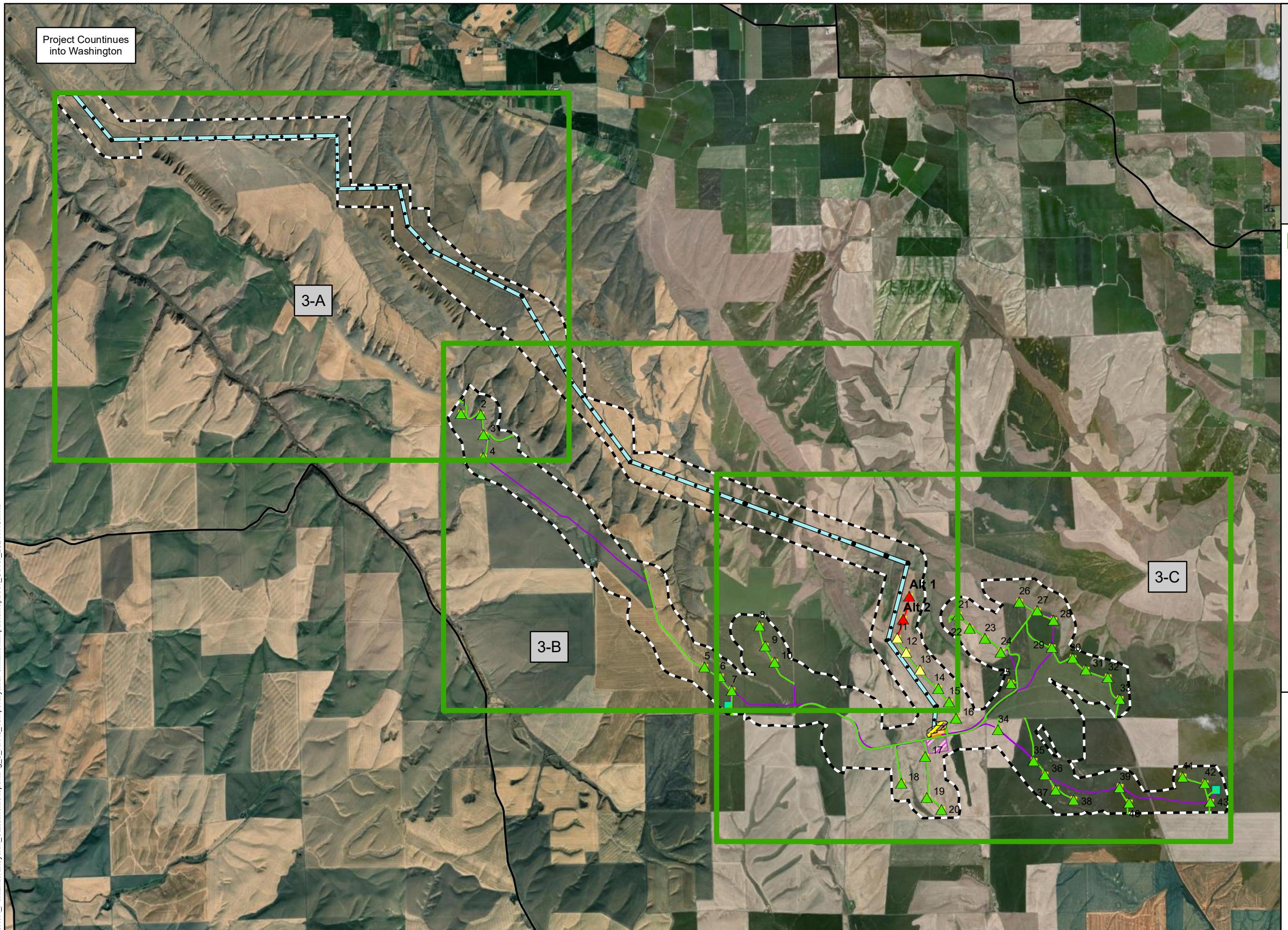


Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 3  
Temporary and  
Permanent Impacts

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA



**Map Grid**

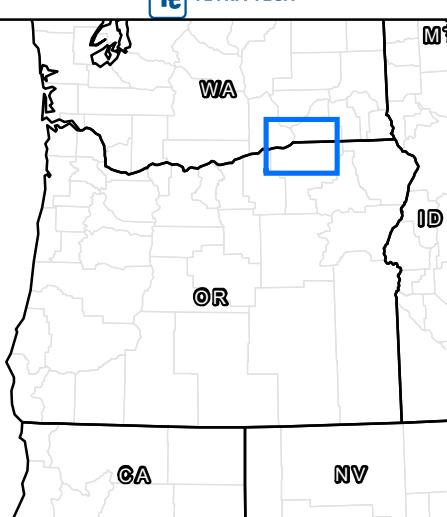
- Existing Turbines (Repower Only)
- Met Tower
- Collection Line
- Substation
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary
- Secondary Road

**Permanent Impacts**

- Additional Turbines - Option B (ALT-1 and ALT-2)
- Replaced Turbines - Option A (11, 12, 13)
- New Road Construction
- Proposed Battery Location

**Temporary Impacts**

- Rotor Assembly
- Service Road (RFA 6 – Temporary widening to previously approved construction width)
- Laydown Area (RFA 6 – Temporary disturbance to previously approved area for construction staging)



ZIGISSenVt\_Portland\Portland\Vansycle\_Stateline\Report\Fig\_3\_RFA6\_TemporaryandPermanentImpactsMapbook\_Cover\_20211115.mxd



TETRA TECH

Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 3-A  
Temporary and  
Permanent Impacts

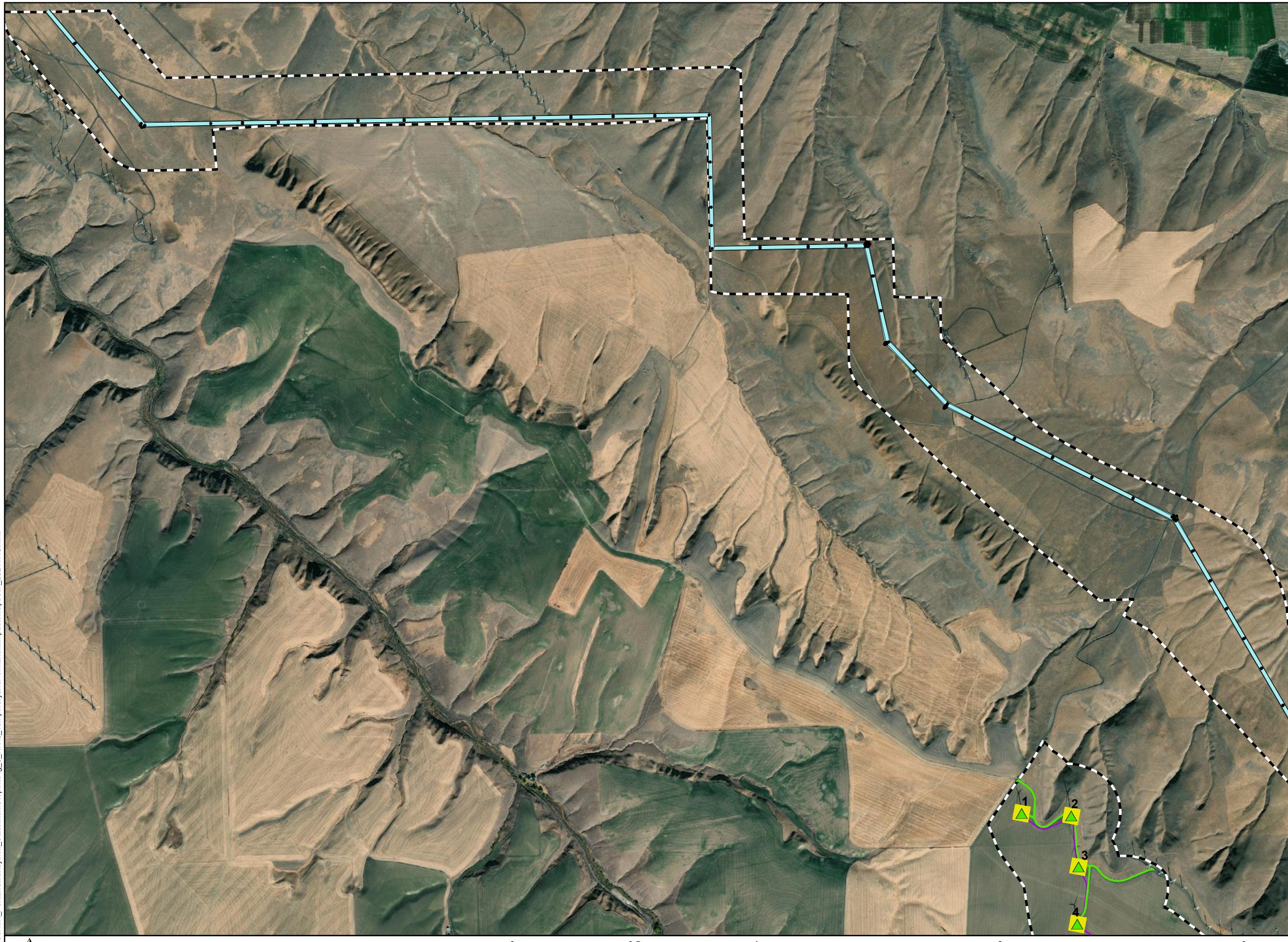
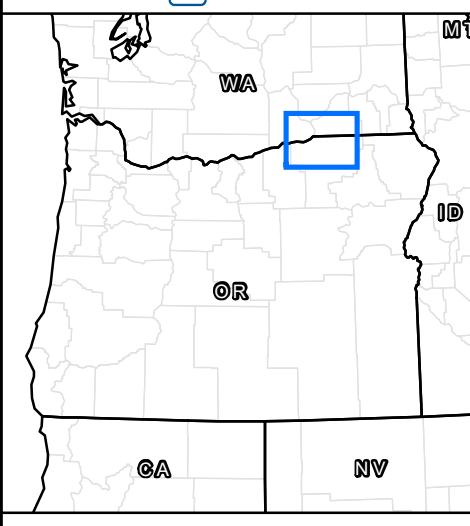
UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower Only)
- Collection Line
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

Temporary Impacts

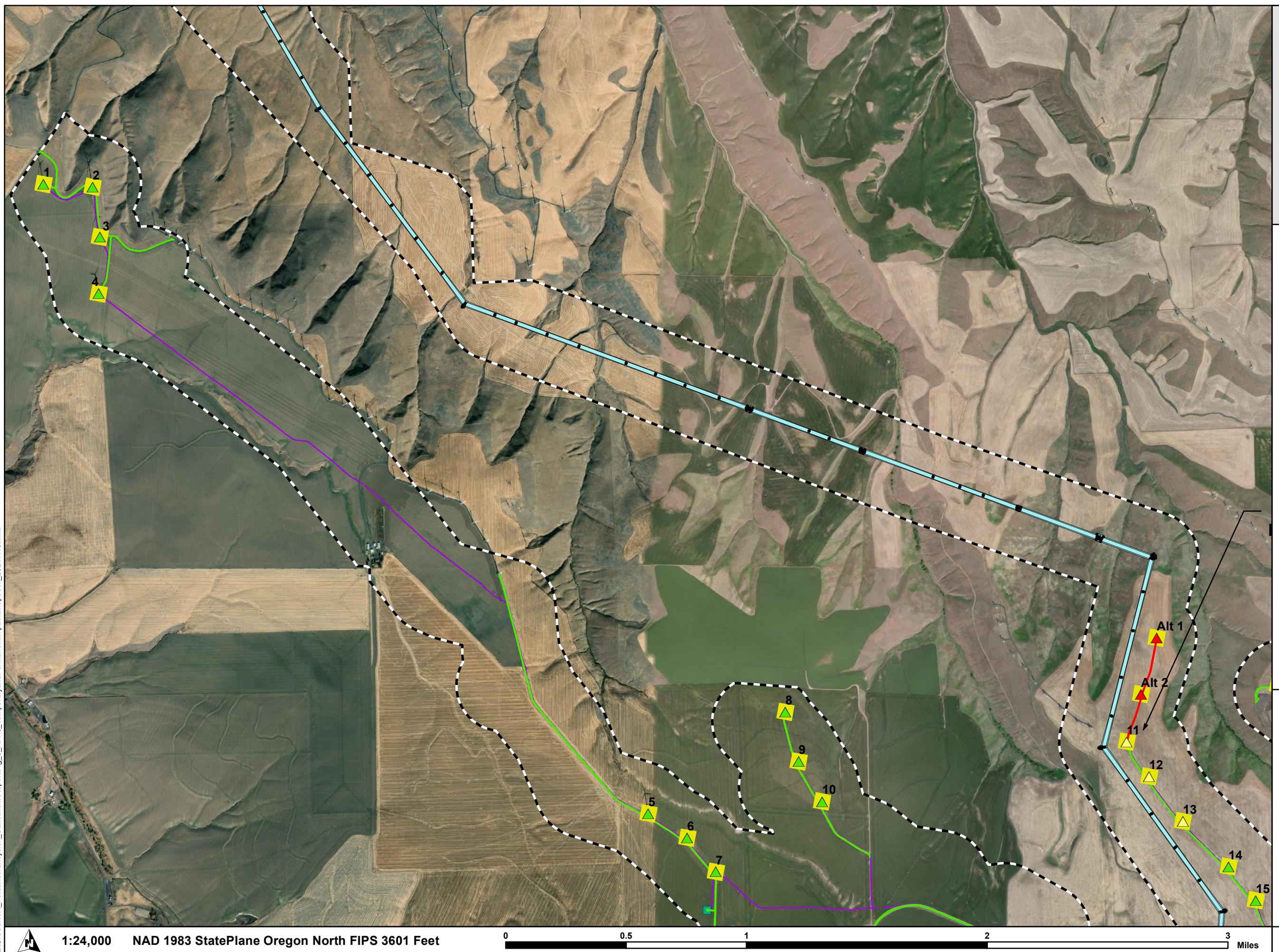
- Rotor Assembly
- Service Road (RFA 6 – Temporary widening to previously approved construction width)

TETRA TECH



1:24,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.5 1 2 3 Miles



## Stateline Wind Project Request for Amendment 6

## **Vansycle II**

## Figure 3-B Temporary and Permanent Impacts

**UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA**

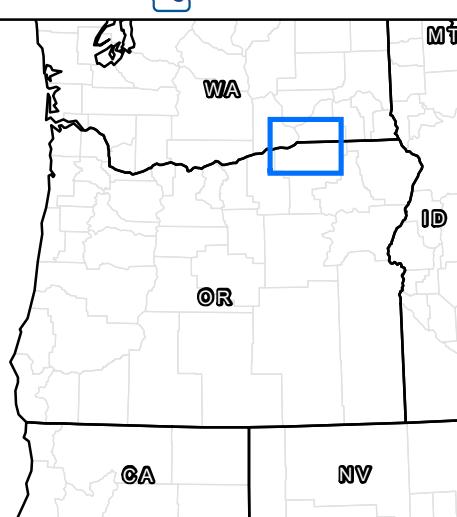
- ▲ Existing Turbines (Repower Only)
- Met Tower
- Collection Line
  - Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

## Permanent Impacts

- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- New Road Construction

## Temporary Impacts

TETRA TECH



**Stateline Wind Project  
Request for Amendment 6**

**Vansycle II**

**Figure 3-C  
Temporary and  
Permanent Impacts**

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower Only)
- Met Tower
- Collection Line
- Substation
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

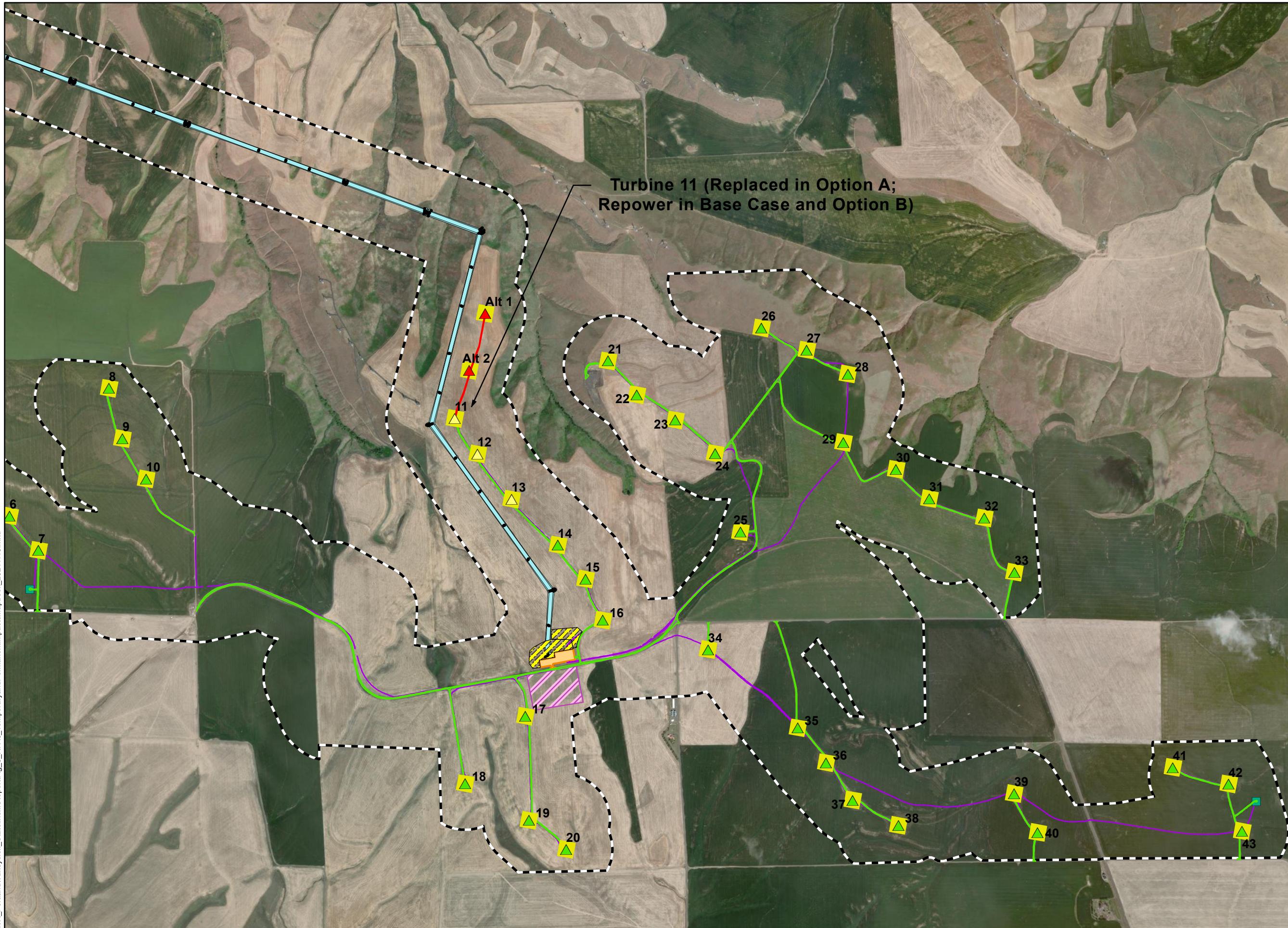
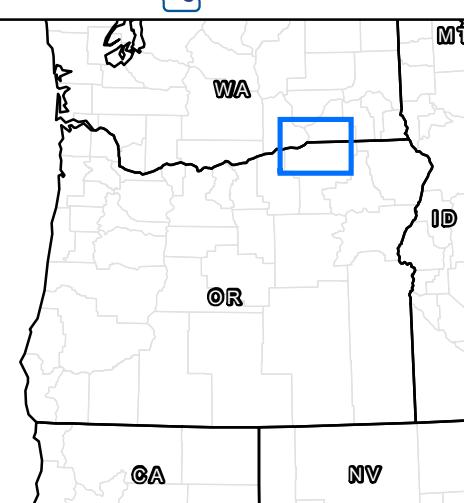
**Permanent Impacts**

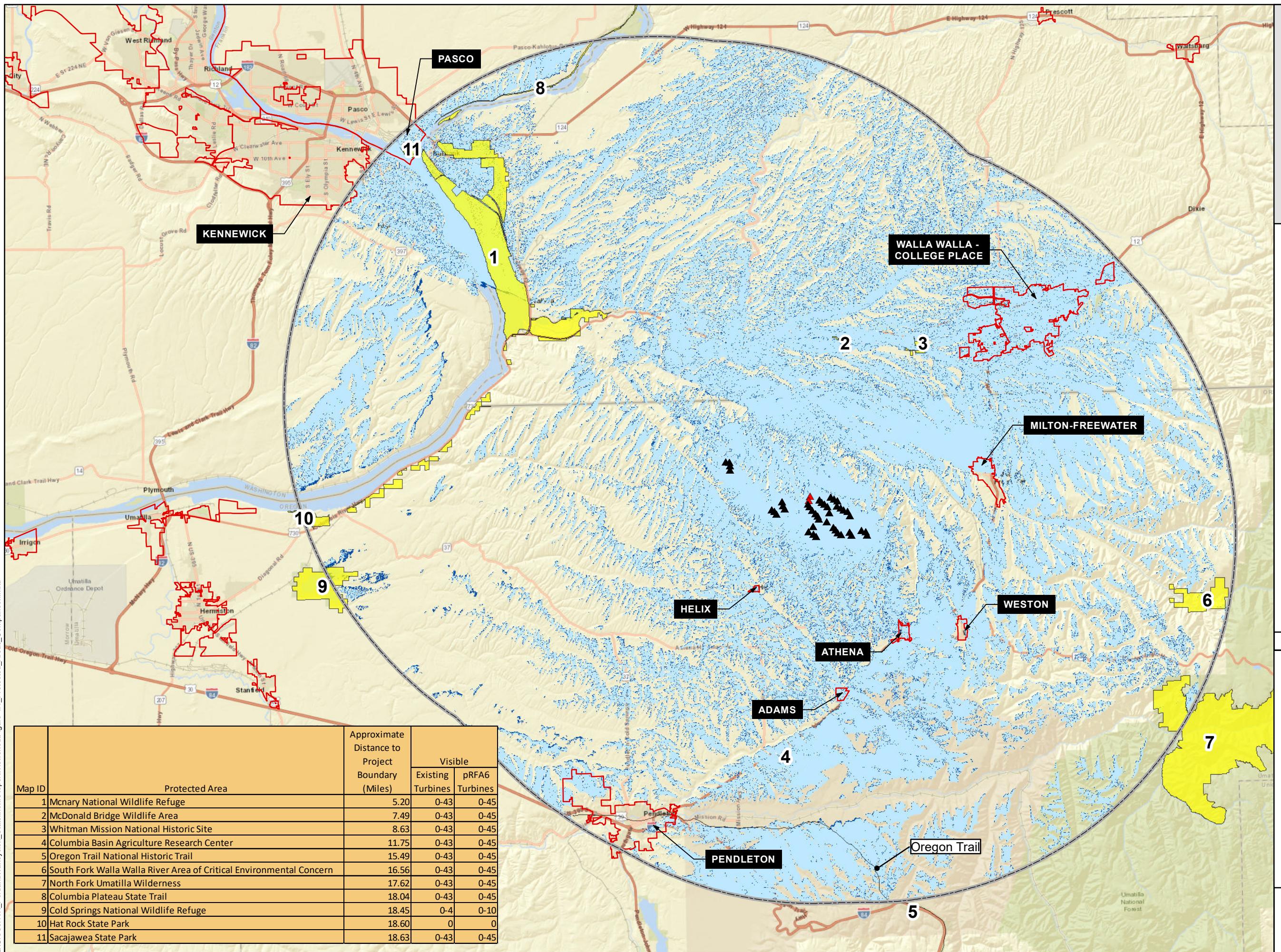
- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- New Road Construction
- Proposed Battery Location

**Temporary Impacts**

- Rotor Assembly
- Service Road (RFA 6 – Temporary widening to previously approved construction width)
- Laydown Area (RFA 6 - Temporary disturbance to previously approved area for construction staging)

**TETRA TECH**





## Stateline Wind Project Request for Amendment 6

## Vansycle II



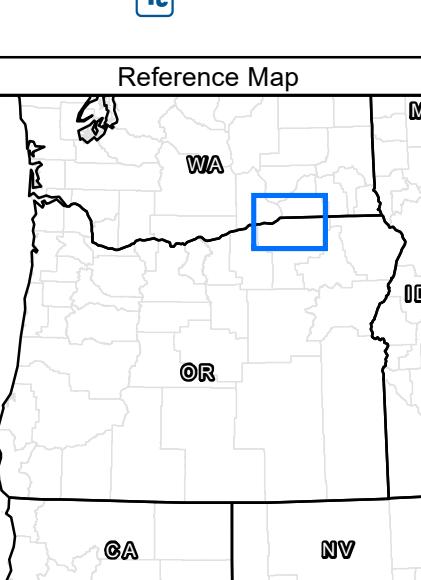
## Figure 4.1 Protected Areas ZVI Comparison UMATILLA COUNTY, OR AND WALLA WALLA COUNTY, WA

- ▲ Repower Turbines
- ▲ Repower Turbines - Option B
- Alternatives
- City Limits
- Protected Area - 20 Mile Boundary
- Protected Area
- Area of Turbine Visibility (Existing Turbine Height 440')
- Additional Visible Areas with RFA 6 Modifications (Proposed Turbine Height 499')

Analysis Area: 20 Miles from Turbines  
Assumed Viewer Height: 6-foot tall person



0 1.25 2.5 5 Miles



## Data Sources:

Not for Construction

Stateline Wind Project  
Request for Amendment 6

Vansycle II



Figure 4.2  
Protected Areas  
ZVI

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Repower Turbines
- ▲ Repower Turbines - Option B
- ▲ Alternatives
- ▬ City Limits
- ▬ Protected Area - 20 Mile Boundary
- ▬ Protected Area

Zone of Visual Influence

0
1 - 10
11 - 20
21 - 30
31 - 40
41 - 43

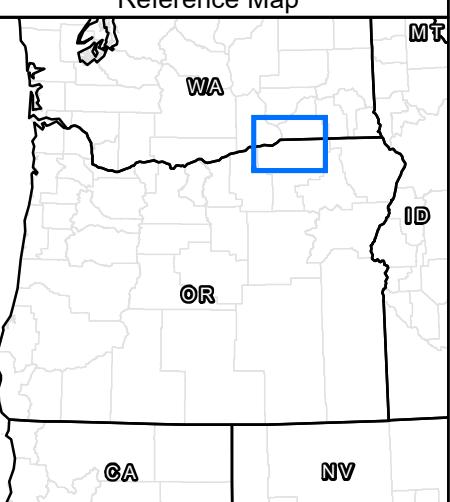
Analysis Area: 20 Miles from Turbines  
Assumed Viewer Height: 6-foot tall person



0 1.25 2.5 5 Miles

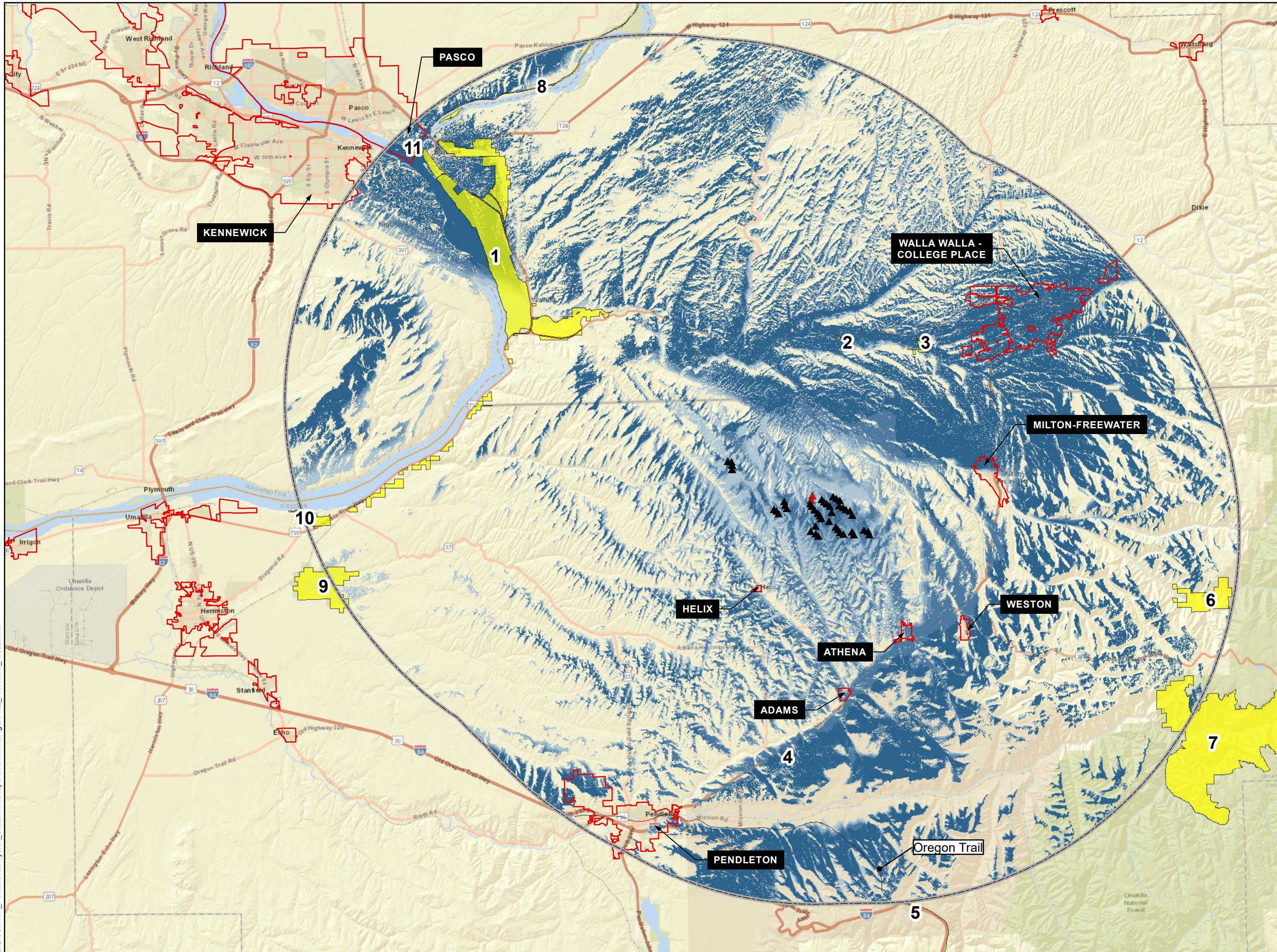
1:316,800  
NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl  
TETRA TECH

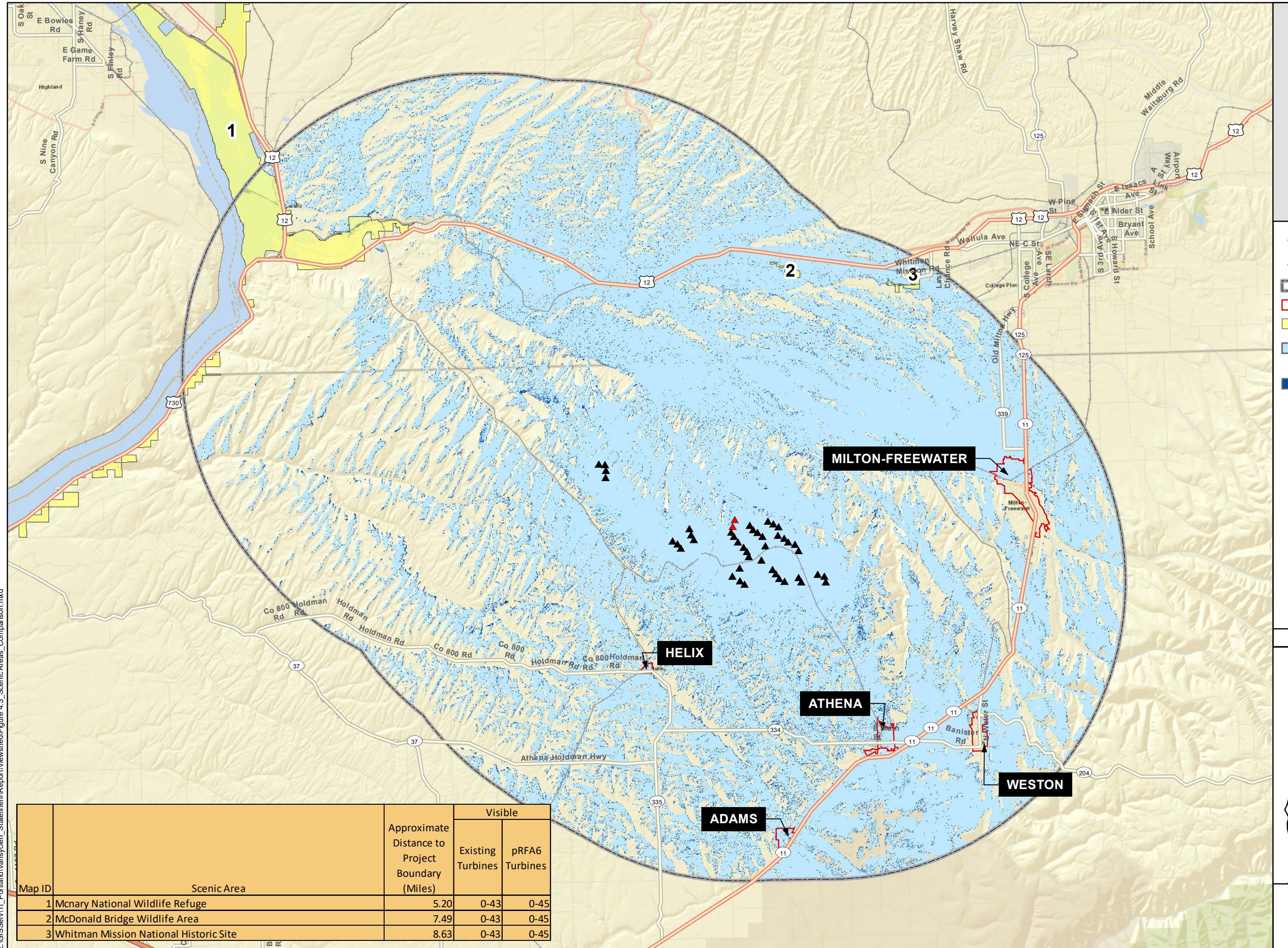
Reference Map



Data Sources:  
ESRI Streetmap

Not for Construction





# Stateline Wind Project Request for Amendment 6

## Vansycle II



## Figure 4.3 Scenic Areas ZVI Comparison

## UMATILLA COUNTY, OR AND WALLA WALLA COUNTY, WA

- ▲ Repower Turbines
- ▲ Repower Turbines - Option B
- Alternatives
-  Scenic Area - 10 Mile Boundary
-  City Limits
-  Scenic Area
-  Area of Turbine Visibility  
(Existing Turbine Height 440')
- Additional Visible Areas with
-  RFA 6 Modifications (Proposed  
Turbine Height 499')

Analysis Area: 10 Miles from Turbines  
Assumed Viewer Height: 6-foot tall person

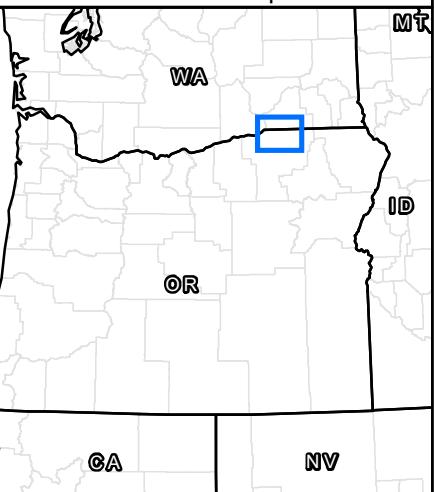


0 1.25 2.5 5 Miles

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l

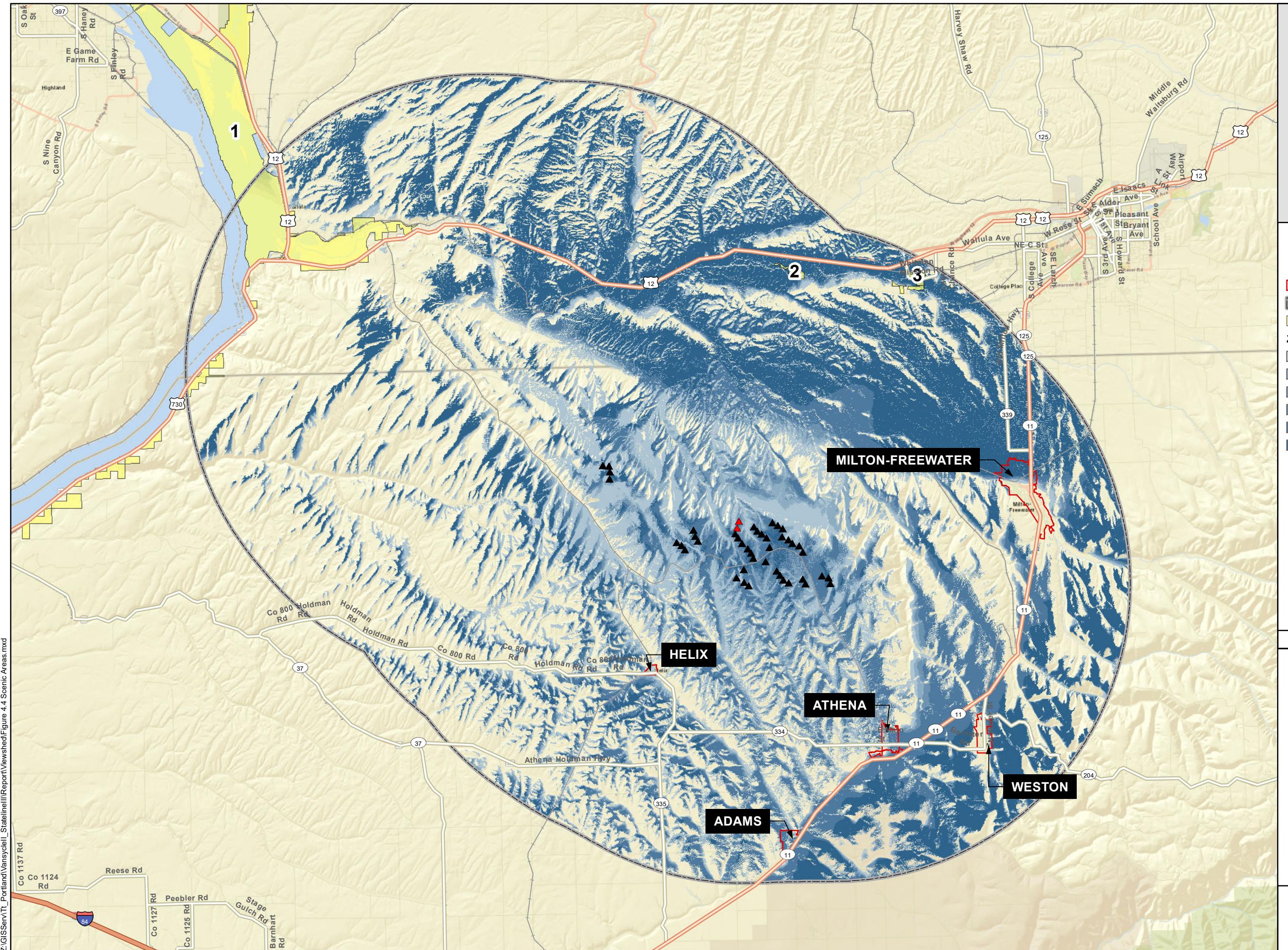


## Reference Map



## Data Sources:

Not for Construction



# Stateline Wind Project Request for Amendment 6

## Vansycle II



## Figure 4.4 Scenic Areas ZVI

**UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA**

- ▲ Repower Turbines
- ▲ Repower Turbines - Option B
- ▲ Alternatives

## Zone of Visual Influence

0	1 - 10	11 - 20	21 - 30	31 - 40	41 - 43
---	--------	---------	---------	---------	---------

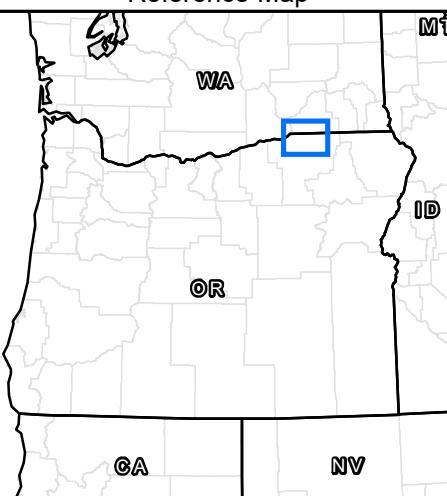
Analysis Area: 10 Miles from Turbines  
Assumed Viewer Height: 6-foot tall person



1.25 2.5 5

1:196,241  
NAD 1983 StatePlane Oregon

## Reference Map



## Data Sources:

## Not for Construction

Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 5 Habitat  
Mapping

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Permanent Impacts

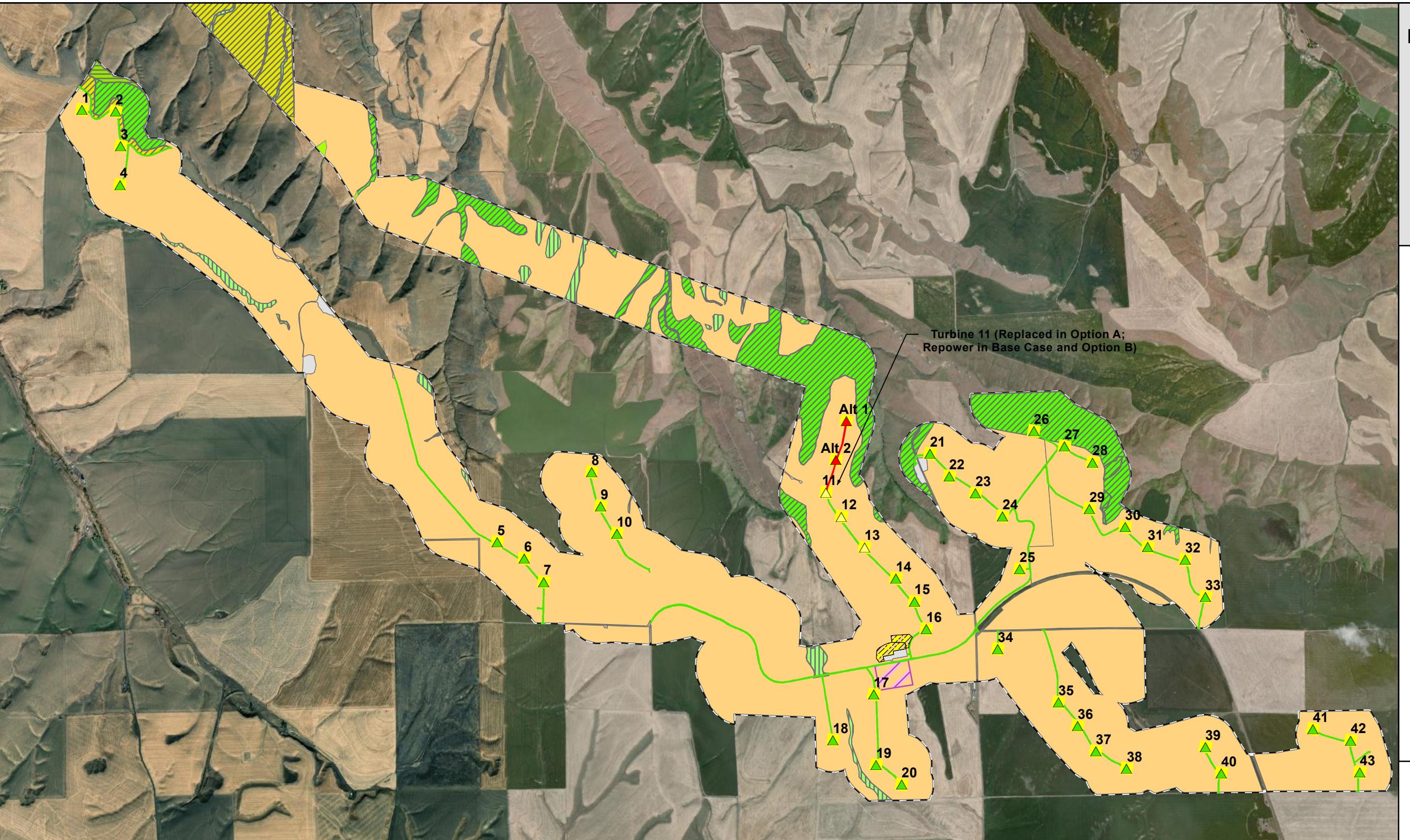
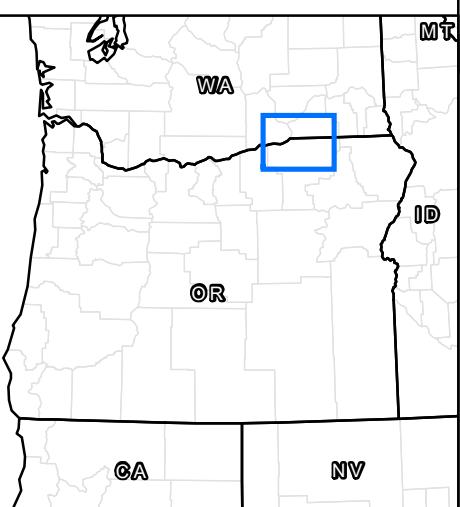
- Additional Turbines - Option B (ALT-1 and ALT-2)
- Replaced Turbines - Option A (11, 12, 13)
- New Road Construction

Proposed Battery Location

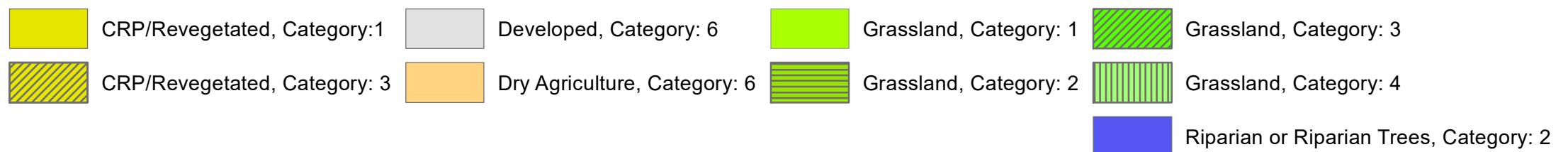
Temporary Impacts

- Rotor Assembly
- Service Road (Widening)
- Laydown
- Existing Turbines (Repower Only)

TETRA TECH



Habitat Mapping



1:38,749 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

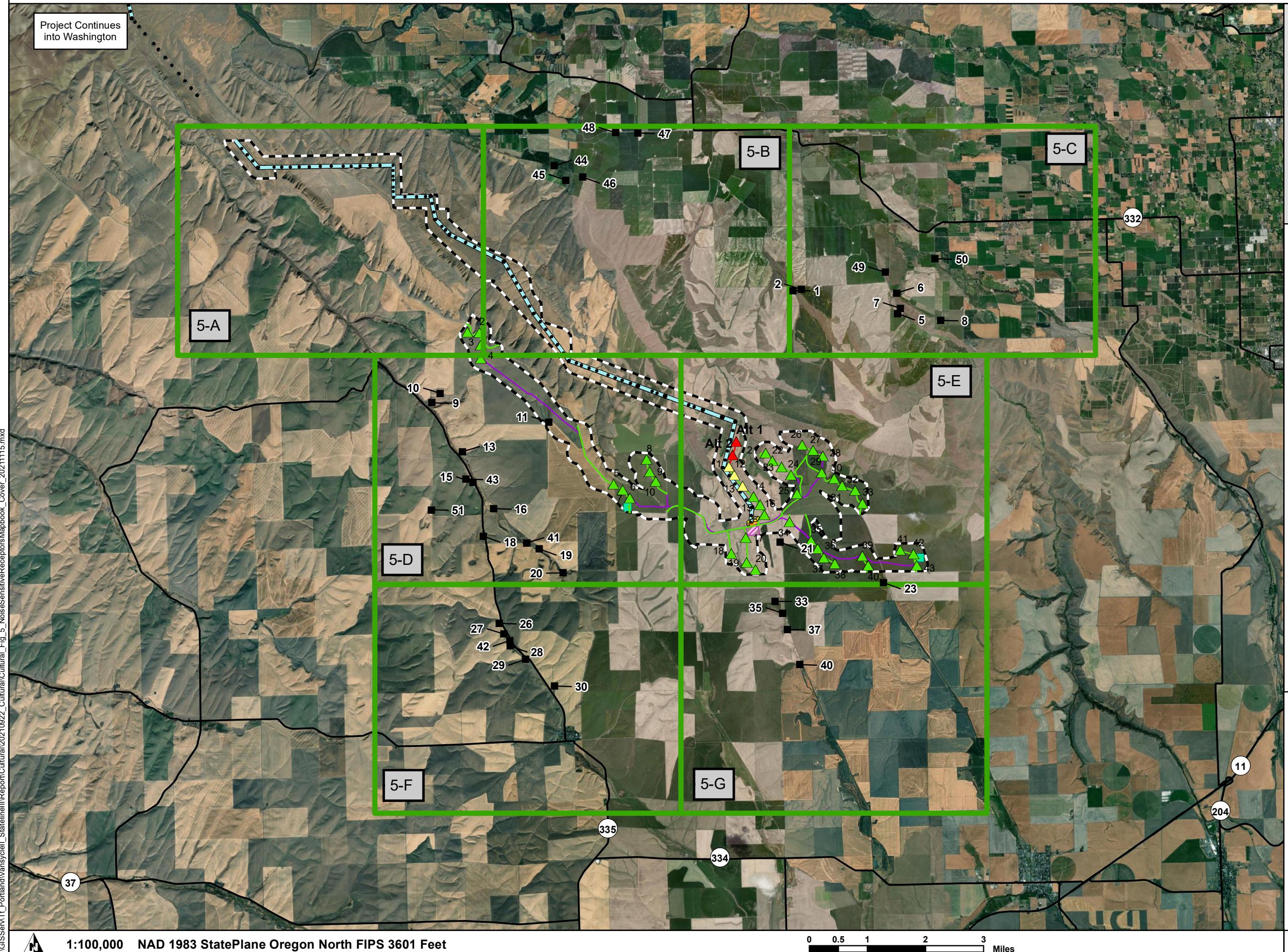
0 0.5 1 2 3 Miles

Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 6  
Noise Sensitive Receptors

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA



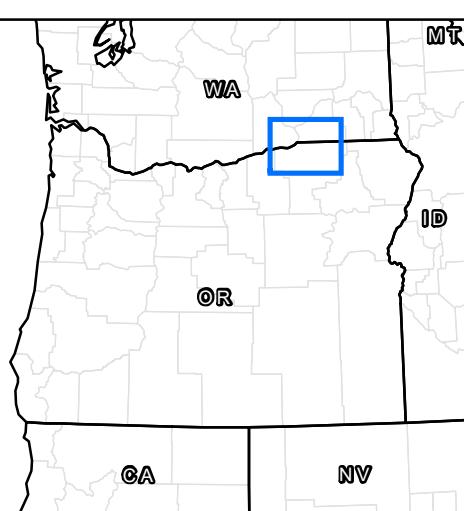
- Noise Sensitive Receptor
- Map Grid
- ▲ Existing Turbines (Repower)
- Met Tower
- Collection Line
- Substation
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary
- Secondary Road

**Permanent Impacts**

- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- New Road Construction
- Proposed Battery Location

**Temporary Impacts**

- Rotor Assembly
- Service Road (RFA 6 – Temporary widening to previously approved construction width)
- Laydown Area (RFA 6 – Temporary disturbance to previously approved area for construction staging)









Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 6-D  
Noise Sensitive Receptors

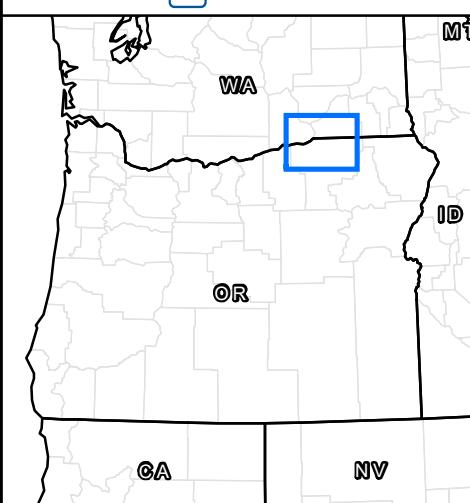
UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- Noise Sensitive Receptor
- ▲ Existing Turbines (Repower Only)
- Met Tower
- Collection Line
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

**Temporary Impacts**

- Rotor Assembly Areas
- Service Road (RFA 6 – Temporary widening to previously approved construction width)

TETRA TECH



1:24,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.5 1 2 3 Miles

Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 6-E  
Noise Sensitive Receptors

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- Noise Sensitive Receptor
- ▲ Existing Turbines (Repower)
- Met Tower
- Collection Line
- Substation
- Transmission Line Pole
- Overhead Transmission Lines
- Project Boundary

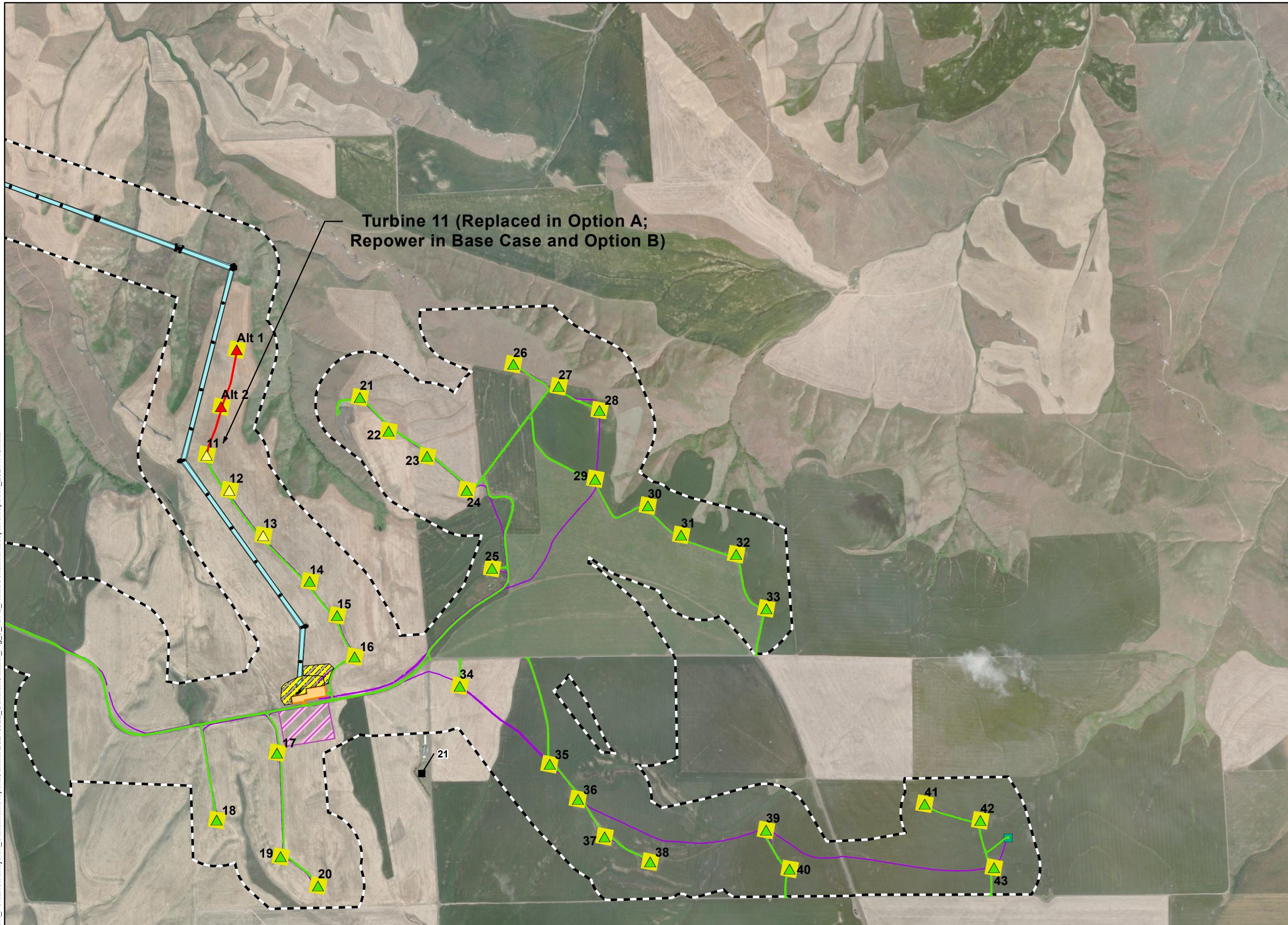
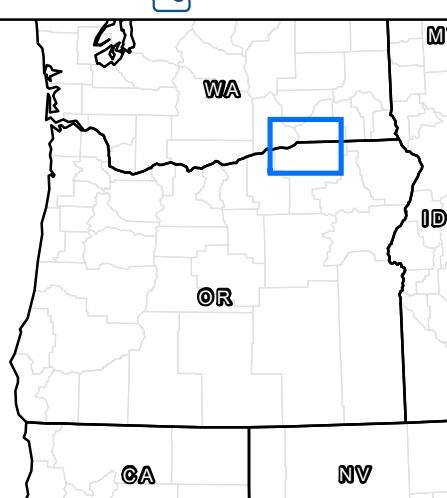
**Permanent Impacts**

- ▲ Additional Turbines - Option B (ALT-1 and ALT-2)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- New Road Construction
- Proposed Battery Location

**Temporary Impacts**

- Rotor Assembly
- Service Road (RFA 6 – Temporary widening to previously approved construction width)
- Laydown Area (RFA 6 - Temporary disturbance to previously approved area for construction staging)

TETRA TECH



Stateline Wind Project  
Request for Amendment 6

Vansycle II

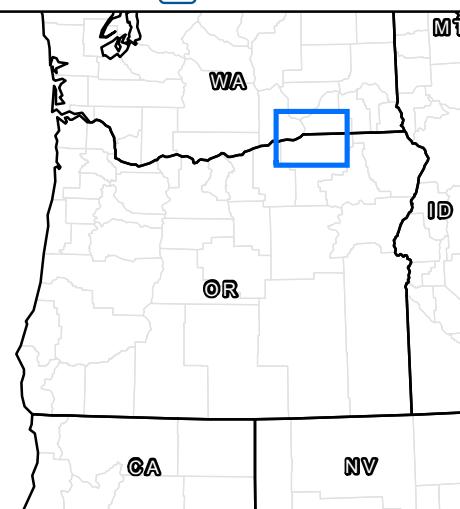
Figure 6-F  
Noise Sensitive Receptors

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

■ Noise Sensitive Receptor



TETRA TECH



1:24,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.5 1 2 3 Miles

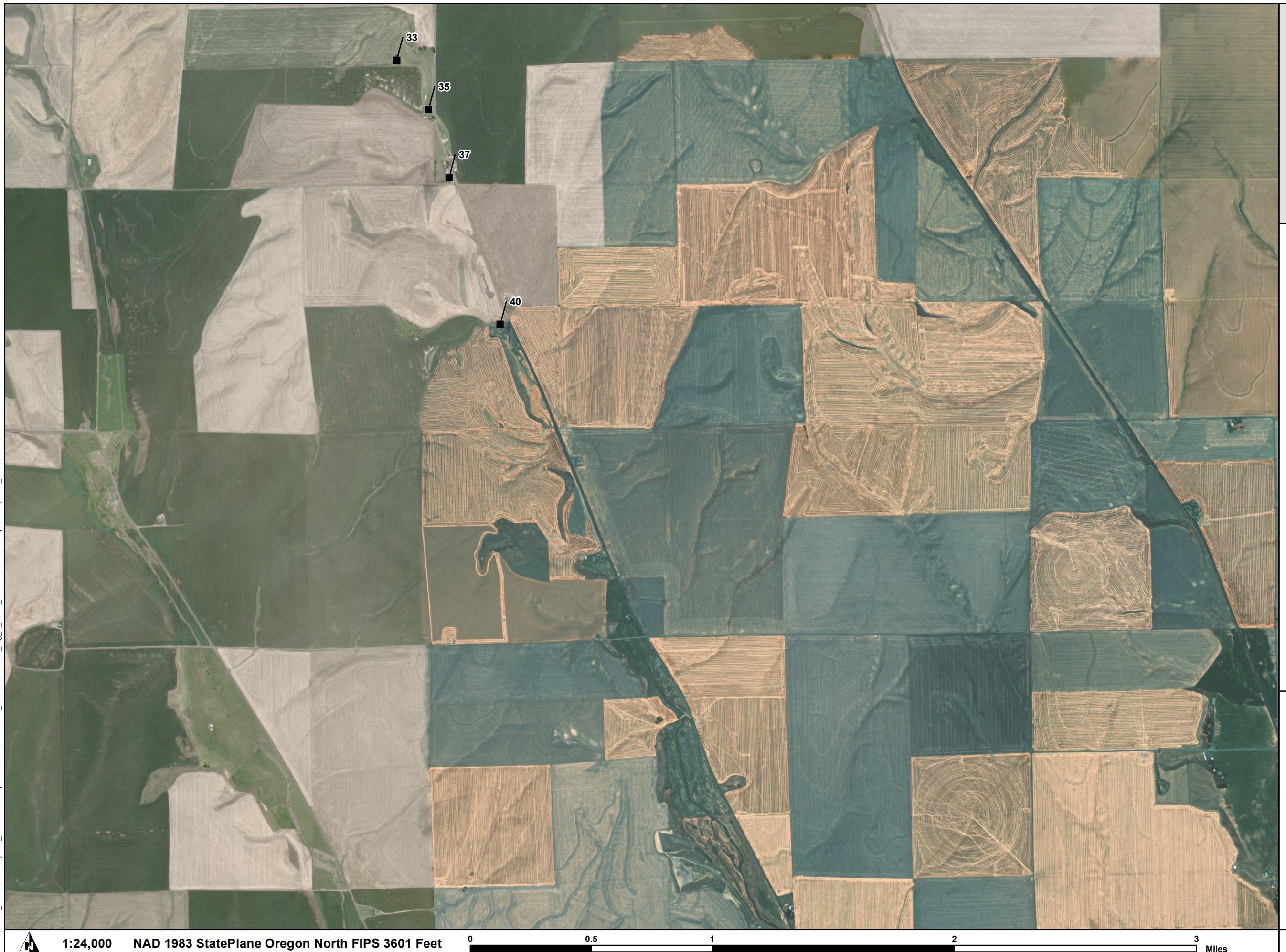
## Stateline Wind Project Request for Amendment 6

## Vansycle II

## Figure 6-G Noise Sensitive Receptors

**UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA**

## ■ Noise Sensitive Receptor



**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 1. Stateline Wind Project Red-lined Site Certificate**

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

---

**SixthFifth Amended Site  
Certificate for the  
Stateline Wind Project**

**MonthMay 2021+9**

**ISSUANCE DATES**

Site Certificate	September 14, 2001
First Amended Site Certificate	May 24, 2002
Second Amended Site Certificate	June 6, 2003
Third Amended Site Certificate	June 20, 2005
Fourth Amended Site Certificate	March 27, 2009
Fifth Amended Site Certificate	May 17, 2019

## Oregon Energy Facility Siting Council

### **FIFTH AMENDED SITE CERTIFICATE FOR THE STATELINE WIND PROJECT**

#### **I. INTRODUCTION**

The Energy Facility Siting Council (“Council”) issues this site certificate for the Stateline Wind Project 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 the certificate holders. The certificate holders are FPL Energy Vansycle LLC (“FPL Vansycle”) and FPL Energy Stateline II, Inc. (“FPL Stateline”). This site certificate authorizes the certificate holders to construct and operate the Stateline Wind Project (the “facility”) in Umatilla County, Oregon. [Amendment #4]

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 in the Matter of the Application for a Site Certificate for the Stateline Wind Project (“Final Order on the Application”), issued on September 14, 2001, (b) the Council’s Final Order in the Matter of the Request for Amendment #1 of the Site Certificate for the Stateline Wind Project (“Final Order on Amendment #1”), (c) the Council’s Final Order in the Matter of the Request for Amendment #2 of the Site Certificate for the Stateline Wind Project (“Final Order on Amendment #2”), (d) the Council’s Final Order in the Matter of the Request for Amendment #3 of the Site Certificate for the Stateline Wind Project (“Final Order on Amendment #3”), (e) the Council’s Final Order in the Matter of the Request for Amendment #4 of the Site Certificate for the Stateline Wind Project (“Final Order on Amendment #4”), **and** (f) the Council’s Final Order in the Matter of the Request for Amendment #5 (“Final Order on Amendment #5”), **and** (g) the Council’s Final Order in the Matter of the Request for Amendment #6 (“Final Order on Amendment #6”). [Amendments #1, #2, 3, #4, #5, #6]

[Text added here by Amendment #3 was deleted by Amendment #4]

In interpreting this site certificate, any ambiguity will be clarified by reference to the following, in order of priority: this **Sixth Amended Site Certificate, Final Order on Amendment #6**, Fifth Amended Site Certificate, Final Order on Amendment #5, Fourth Amended Site Certificate, Final Order on Amendment #4, the Final Order on Amendment #3, the Final Order on Amendment #2, the Final Order on Amendment #1, the Final Order on the Application and the record of the proceedings that led to the Final Orders on the Application and Amendments #1, #2, #3, #4, **and** #5, **and** #6. [Amendments #1, #2, #3, #4, **and** #5, **and** #6]

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 FPL Vansycle to construct, operate and retire Stateline 1&2 and authorizes FPL Stateline to construct, operate and retire Vansycle II as described in Section III of this site certificate. ORS 469.401(1). [Amendment #4; AMD5]
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). [AMD5]

STATELINE WIND PROJECT

**SIXTHFIFTH** AMENDED SITE CERTIFICATE – MONTH **May** 2021+9

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 Amendments #1, #2, #3, #4 ~~and #5, and #6~~. These 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. ORS 469.503(3).  
[Amendments #1, #2, #3, #4, ~~and #5, and #6~~]
4. The State and the certificate holders 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). [Amendment #4; AMD5]
5. For a permit, license or other approval addressed in and governed by this site certificate, the certificate holders 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). [Amendment #4; AMD5]
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). [AMD5]
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). [AMD5]
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). [AMD5]
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 assure that the facility is being operated consistently with the terms and conditions of this site certificate. ORS 469.430. [AMD5]

### **III. DESCRIPTIONS AND DIVIDED RESPONSIBILITY**

#### **1. Stateline 1&2**

##### **(i) Major Structures**

Stateline 1&2 consists of 186 Vestas V47-660-kilowatt (kW) wind turbines, each having a peak generating capacity of 0.66 MW.<sup>1</sup> Each wind turbine is connected to a 34.5-kilovolt (kV) collector system. The wind turbines are grouped in "strings" of turbines, each turbine spaced

---

<sup>1</sup> The site certificate authorizes up to 187 turbines, but the certificate holder chose to build 186.

approximately 250 feet from the next, generally slightly downwind of the crest of ridges. Major facility structures are further as described in the Final Orders on the Application and Amendments #1 and #2. [Amendments #1, #2 and #4]

(ii) Related or Supporting Facilities

Stateline 1&2 includes the following related or supporting facilities described below and in greater detail in the Final Order on Amendment #4:

- Access roads to reach each turbine for construction and maintenance
- Underground collector cables that transmit the electrical output of the wind turbines to a substation in Washington [Amendment #2]
- [Text added by Amendment #2 was deleted by Amendment #4]
- [Text added by Amendment #2 was deleted by Amendment #4]
- Meteorological towers
- A satellite operations and maintenance building

Access Roads

County roads that extend south from Highway 12 in Washington (e.g., Hatch Grade Road and Butler Grade Road) and north from Oregon Highway 11 (e.g., Vansycle Canyon Road and Butler Grade Road) are the primary routes of access to the facility site. From the county roads, a web of private farm roads provides access to most of the ridges upon which the facility is located. Additional access roads are located along the length of each turbine string and connecting each turbine string to the next. Access roads are further as described in the Final Orders on the Application and Amendments #1 and #2. [Amendments #1 and #2]

Collector System

The wind turbines generate power at 690 volts. A transformer adjacent to each tower transforms the power to 34.5 kV. From the turbines, power is transmitted via an underground 34.5-kV collector system. Overhead transmission lines, located entirely within Washington, connect the Washington substation to a BPA 115-kV transmission line north of the Walla Walla River and to a PacifiCorp substation just north of Highway 12. [Amendments #1, #2 and #4]

Meteorological Towers

Stateline 1&2 includes up to six permanent meteorological (met) towers to measure wind conditions. The met towers are unguyed towers. [Amendments #1, #2 and #4]

Satellite O&M Building

Stateline 1&2 includes an operation and maintenance (O&M) facility, which is a satellite to the primary O&M facility located in Washington. The satellite O&M facility is located along Butler Grade Road south of Gardena and just south of the state line in Oregon. [Amendment #4]

## 2. Vansycle II<sup>2</sup>

(i) Major Structures

Stateline 3 consists of up to 43 Siemens 2.3 MW wind turbines (depending on the repowering configuration chosen). Stateline 3 has a combined peak generating capacity of up to 118.6898.9 MW. Major facility structures are further as described in the Final Order on Amendment #4. [Amendment #4; AMD5; AMD6]

<sup>2</sup> Prior to the Fifth Amended Site Certificate, Vansycle II was referred to as Stateline 3.

### Wind Turbine Repower

Wind turbine **partial** repowering includes removal and replacement of wind turbine hub (blade and rotor) and gearbox (nacelles). Haul trucks, boom trucks and cranes are used to support repowering activities. A crane is mobilized and new gearboxes, blades and hub are delivered onsite. A boom truck or telehandler is used to unload and assemble new turbine blades and hub into a complete rotor. Gearboxes and assembled hubs are set up on the access road adjacent to the wind turbine. The crane is used to lower rotors and gearbox, which is then be place next to the crane; and, then used to pick up and set the new rotor. Either a boom truck or telehandler is used to disassemble the replaced rotor (blade and hub); materials are then transported offsite for proper disposal at a licensed disposal or recycling facility.

[AMD5; AMD6]

#### **(ii) Related or Supporting Facilities**

Stateline 3 includes the following related or supporting facilities described below and in greater detail in the Final Order on Amendment #4 **and Final Order on Amendment #6**:

- Access roads to reach each turbine for construction and maintenance
- Underground collector cables that transmit the electrical output of the wind turbines to a substation
- A substation
- A 230-kV transmission line
- Meteorological towers
- An operations and maintenance building
- Temporary laydown areas and access roads
- **50 MW battery energy storage system**

[Amendment #4; AMD5; AMD6]

### Access Roads

County roads that extend south from Highway 12 in Washington (e.g., Hatch Grade Road and Butler Grade Road) and north from Oregon Highway 11 (e.g., Vansycle Canyon Road and Butler Grade Road) are the primary routes of access to the facility site. From the county roads, a web of private farm roads provides access to most of the ridges upon which the facility is located. Additional access roads are located along the length of each turbine string and connecting each turbine string to the next. [Amendment #4]

### Collector System, Substation and Transmission Line

The wind turbines generate power at 690 volts. A transformer adjacent to each tower transforms the power to 34.5 kV. From the turbines, power is transmitted via an underground 34.5-kV collector system to a substation located in Township 5 North, Range 34 East. Approximately 16 miles of aboveground 230-kV transmission line (13 miles in Oregon) connects the Stateline 3 substation to existing major transmission lines in Washington. [Amendment #4]

### Meteorological Towers

Stateline 3 includes two permanent meteorological (met) towers. The met towers are un guyed towers. [Amendment #4]

### O&M Building

Stateline 3 includes an O&M building near the intersection of Wayland Road and

Gerking Flat Road north of Helix. [Amendment #4]

Temporary Laydown Areas, and Access Roads, and Crane Paths

Temporary laydown or staging areas used during construction of facility modifications approved in the ~~Sixth~~<sup>Fifth</sup> Amended Site Certificate are located at each new and existing tower location (approximately ~~2.84~~<sup>4</sup> acres of temporary disturbance at up to ~~4~~<sup>53</sup> wind turbine locations, totaling approximately ~~126.56~~<sup>0</sup> acres, depending on the repowering configuration chosen), and an additional 20-acre staging area is used for temporary equipment storage and parking.

Temporary access roads used during construction of facility modifications approved in the ~~Sixth~~<sup>Fifth</sup> Amended Site Certificate include approximately ~~15.7~~ miles of existing 16-foot access roads, temporarily widened to ~~32~~<sup>3</sup> feet plus an additional 3 feet of shoulder on each side (or ~~389~~ feet total and approximately ~~65.24~~<sup>2</sup> acres total). Note that to access the alternative turbine locations approximately 0.44 miles of new road will be created. Note that the crane paths will follow these improved and new roads.

Temporary road widening uses the same design specifications (e.g., graded level to the current road profile) as the existing road. Temporary widening of the access roads prior to construction generally consists of clearing vegetation by mowing and minor grading of the road.

[AMD5; AMD6]

Battery Energy Storage System

A 50-MW battery energy storage system will be collocated with the facility substation, totaling approximately 11 acres.

### **3. Location of the Facility**

The facility is located in Umatilla County, north and east of Helix, Oregon. The towns closest to the facility are Helix, Oregon, and Touchet, Washington. The wind turbines would be located on ridges east of the Columbia River and south of the Walla Walla River. The location of the facility is further as described in the Final Orders on the Application and Amendments #1, #2 and #4. [Amendments #1, #2 and #4]

### **4. Responsibility for Stateline 1&2 and Vansycle II**

FPL Vansycle shall be individually responsible for compliance with all conditions relating to Stateline 1&2, and FPL Stateline shall not be jointly responsible for such compliance. FPL Stateline shall be individually responsible for compliance with all conditions relating to Vansycle II and FPL Vansycle shall not be jointly responsible for such compliance. If the Council or the Oregon Department of Energy (“Department”) determines that a violation of the Site Certificate or any Council order pertaining to the facility may have occurred, the Council or the Department may direct appropriate inquiries to the responsible entity. If the Council or the Department is unable to determine which entity is responsible, the Council or the Department may direct appropriate inquiries to both entities. [Amendment #4; AMD5]

#### **IV. CONDITIONS REQUIRED BY COUNCIL RULES**

This section lists conditions specifically 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 in OAR Chapter 345, Division 26 (Construction and Operation Rules for Facilities). These conditions should be read together with the additional

specific facility conditions 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. [Amendments #1 and #4]

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by agents or contractors. However, FPL Vansycle is responsible for ensuring compliance with all provisions of the site certificate pertaining to Stateline 1&2, and FPL Stateline is responsible for ensuring compliance with all provisions of the site certificate pertaining to Vansycle II. [Amendment #4].

Citation to the sources of, or basis for, certain conditions are shown in parentheses.<sup>3</sup> Conditions are numbered continuously throughout sections IV through IX of this site certificate. [Amendment #4]

In applying the conditions in this section, “certificate holder” means FPL Vansycle with regard to Stateline 1&2 and FPL Stateline with regard to Vansycle II. [Amendment #4]

## 1. General Conditions

- (1) The Council shall not change the conditions of the site certificate except as provided for in OAR Chapter 345, Division 27. (OAR 345-027-0020(1))
- (2) The certificate holder shall 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.

(OAR 345-027-0020(3))
- (3) The certificate holder shall begin and complete construction of the facility by the dates specified in the site certificate. (345-027-0020(4))

See conditions (24), (97) and (106). [Amendment #4]
- (4) The certificate holder shall prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. (345-027-0020(7))
- (5) The Council shall 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. (OAR 345-027-0020(10))
- (6) For the related or supporting transmission lines:
  - (a) The certificate holder shall design, construct and operate the transmission line in accordance with the requirements of the National Electrical Safety Code (American National Standards Institute, Section C2, 1997 Edition); and

---

<sup>3</sup> References to the site certificate application are to the application as modified by the supplement and later revisions, abbreviated as “App.”

(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. (OAR 345-027-0023(6)) [Amendment #4]

(7) 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 OAR Chapter 345 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 (a) and (b), 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.

(OAR 345-027-0028) [Amendment #4]

(8) The certificate holder shall report according to the following requirements:

- (a) General reporting obligation for energy facilities under construction or operating:
  - (i) Within six months after beginning construction, and every six months thereafter during construction of the energy facility and related or supporting facilities, the certificate holder shall submit a semiannual construction progress report to the Department of Energy. In each construction progress report, the certificate holder shall describe any significant changes to major milestones for construction. The certificate holder shall include such information related to construction 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;
  - (ii) By April 30 of each year after beginning construction, the certificate holder shall submit an annual report to the Department addressing the subjects listed in this rule. The Council Secretary and the certificate holder may, by mutual agreement, change the reporting date.
  - (iii) 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.
- (b) 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) Status of Surety Information: Documentation demonstrating that the 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) 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) Compliance Report: A description of all instances of noncompliance with a site certificate condition. 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) Facility Modification Report: A summary of changes to the facility that the certificate holder has determined do not require a site certificate amendment in accordance with OAR 345-027-0050.

(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).

(OAR 345-026-0080) [Amendment #4]

(9) [Condition removed by Amendment #4]

(10) 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. (OAR 345-026-0105) [Amendment #4]

## 2. Conditions That Must Be Met Before Construction Begins

(11) Except as necessary for the initial survey or as otherwise allowed for wind energy facilities, transmission lines or pipelines under OAR 345-027-0020(5), the certificate holder shall not begin construction, as defined in OAR 345-001-0010, or create a clearing on any part of the site until the certificate holder has construction rights on all parts of the site. For the purpose of this rule, “construction rights” means the legal right to engage in construction activities. For 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 the 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 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.

(OAR 345-027-0020(5)) [Amendment #4]

(12) 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. (OAR 345-026-0048) [Amendment #4]

(13) The certificate holder shall 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 the outer boundaries that contain all parts of the facility. (OAR 345-027-0020(2)) [Amendment #4]

See Condition (84).

(14) 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. (OAR 345-027-0020(6))

**(15)** 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. The certificate holder shall maintain the 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. (OAR 345-027-0020(8))

See Conditions (80) and (109).

[Amendment #4]

### **3. Conditions That Apply During Construction**

**(16)** The certificate holder shall 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. As used in this rule "seismic hazard" includes ground shaking, landslide, liquefaction, lateral spreading, tsunami inundation, fault displacement and subsidence. (OAR 345-027-0020(12))

**(17)** The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division and to propose mitigation actions. (OAR 345-027-0020(13)) [Amendment #4]

**(18)** The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. (OAR 345-027-0020(14)) [Amendment #4]

### **4. Conditions That Must Be Met Before Operation Begins**

**(19)** The certificate holder shall retire the facility if the certificate holder permanently ceases construction or operation of the facility. The certificate holder shall retire the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110. The certificate holder shall pay the actual cost to restore the site to a useful, 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. (OAR 345-027-0020(9)) [Amendment #4]

**(20)** Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape portions of the site disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility. (OAR 345-027-0020(11)) [Amendment #4]

**(21)** 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. (OAR 345-027-0023(5)) [Amendment #4]

## 5. Conditions That Must Be Met During Operation

(22) [Condition removed by Amendment #4]

(23) 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.

(OAR 345-026-0170) [Amendment #4]

## 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). [Amendments #1 and #4]

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 the public health and safety.

Citation to the sources of, or basis for, certain conditions are shown in parentheses.  
[Amendment #4]

Except as specifically noted, these conditions apply to all phases of the Stateline Wind Project. In applying the conditions in this section, "certificate holder" means FPL Vansycle with regard to Stateline 1&2 and FPL Stateline with regard to Vansycle II. [Amendment #4]

### 1. General Conditions

(24) This condition applies to Stateline 1 only. The certificate holder shall begin construction of Stateline 1 within one year after the effective date of the site certificate. The certificate holder shall complete construction of Stateline 1 on or before two years from the effective date of the site certificate. Under OAR 345-015-0085(9), a site certificate is effective upon execution by the Council Chair and the applicant. Completion of construction occurs upon the date commercial operation of Stateline 1 begins. The Council may grant an extension of the construction beginning or completion deadlines in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Amendment #4]

See condition (3).

(25) Within 72 hours of 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 of Energy. (OAR 345-027-0020(3)) [Amendment #4]

(26) Notwithstanding OAR 345-027-0050(2), an amendment of the site certificate is required if the proposed change would increase the electrical generation capacity of the facility and would increase the number of wind turbines or the dimensions of existing wind turbines. (OAR 345-027-0020(3))

(27) [Condition removed by Amendment #4]

(28) The certificate holder shall report promptly to the Department of Energy any change in its corporate relationship with NextEra Energy Resources LLC. The certificate holder shall report promptly to the Department any change in its access to the resources, expertise and personnel of NextEra Energy Resources LLC. (App A-3, D-2, OAR 345-022-0010) [Amendment #4; AMD5]

(29) The certificate holder shall inspect and maintain all roads, pads and trenched areas to minimize erosion. (App B-11) [AMD5]

(30) The certificate holder shall carry out weed control and reseeding as necessary for the life of the facility, in consultation with the weed control board of Umatilla County. (App B-11) [AMD5]

(31) The certificate holder shall not store fuel or chemicals in Oregon. (App B-12)

(32) The certificate holder shall use hazardous materials in a manner that is protective of human health and the environment and shall comply with all applicable local, state, and federal environmental laws and regulations. The certificate holder shall make sure that accidental releases of hazardous materials will be prevented or minimized through the proper containment of these substances during transportation and use on the site. The certificate holder shall make sure that any oily waste, rags or dirty or hazardous solid waste will be collected in sealable drums and removed for recycling or disposal by a licensed contractor. The certificate holder shall have spill kits containing items such as absorbent pads on equipment and in storage facilities to respond to accidental spills. If an accidental hazardous materials spill or release occurs, the certificate holder shall clean up the spill or release and shall treat or dispose of contaminated soil or other materials according to applicable regulations. (App G-2, V-3) [AMD5]

(33) The certificate holder shall provide to the Department of Energy a copy of the contract with the Milton-Freewater Rural Fire Department for fire protection services during construction and operation of the facility before beginning construction. (App U-25) [Amendment #4; AMD5]

(34) During construction and operation of the facility, the certificate holder shall have water-carrying trailers (“water buffaloes”) at appropriate locations around the facility. The certificate holder shall bring a water buffalo to any job site where there is a substantial risk of fire. The certificate holder shall coordinate with the fire chiefs of the Helix and Milton-Freewater Rural Fire Departments as to the number, capacity and location of the water buffaloes. The certificate holder shall make sure that each water buffalo has a minimum capacity of 350 gallons with sufficient pump and hose equipment, as approved by the local fire chiefs. The certificate holder shall have service trucks and pickup trucks capable of

towing water buffaloes available in sufficient numbers at all times during construction and operation of the facility. (App B-12) [AMD5]

(35) The certificate holder shall take steps to protect the facility and property from unauthorized access and to reduce the risk of accidental injury during construction and operations by (App U-25, 26) [Amendment #3; AMD5]:

- (a) Maintaining fencing and access gates around dangerous equipment or portions of the site as feasible. [Amendments #3 and #4]
- (b) Posting warning signs near high-voltage equipment.
- (c) Requiring construction contractors to provide specific job-related training to employees, including cardiopulmonary resuscitation, first aid, tower climbing, rescue techniques and safety equipment inspection.
- (d) Requiring each worker to be familiar with site safety.
- (e) Assigning safety officers to monitor construction activities and methods during each work shift.
- (f) Ensuring that workers on each shift are certified in first aid.
- (g) Ensuring a well-stocked first-aid supply kit is accessible on-site at all times and that each worker knows its location.
- (h) Conducting periodic safety meetings for construction and maintenance staff.

(36) The certificate holder shall notify the Department of Energy and the Umatilla County Planning Department of any accidents including mechanical failures on the site associated with the operation of the wind power facility that may result in public health and safety concerns. (ORS 469.310) [Amendment #4; AMD5]

(37) To reduce the visual impact of the facility, the certificate holder shall:

- (a) Design, construct and operate a facility consisting of the major structures and related or supporting facilities described in the Site Certificate. [Amendments #1, #2 and #4]
- (b) Group the turbines in strings of 2 to 37. [Amendments #1, #2 and #4]
- (c) Construct each turbine to be not more than ~~29563~~ feet tall at the turbine hub and with a total height of not more than ~~49946~~ feet with the nacelle and blades mounted (App B-5) [Amendment #4; AMD6]<sup>4</sup>
- (d) Mount nacelles on smooth, hollow steel towers. [Amendment #4]
- (e) Paint all towers uniformly in a neutral light gray or white color. [Amendments #2 and #4]
- (f) Not allow any advertising to be used on any part of the facility or on any signs posted at the facility, except that the turbine manufacturer's logo may appear on turbine nacelles. (App BB-2)
- (g) Use only the minimum lighting on its turbine strings required by the Federal Aviation Administration, except:
  - (i) The Stateline 1&2 satellite operations and maintenance building may have a small amount of low-impact exterior lighting for security purposes (App BB-2).
  - (ii) Low-impact lighting may be used for occasional nighttime repairs, operations or maintenance at the substation (at other times this lighting would be turned off).
  - (iii) Security lighting may be used at the Vansycle II O&M building and substation if it is shielded or downward-directed to reduce glare.

[Amendments #2 and #4]

---

<sup>4</sup> See also site certificate Condition 137.

(h) Use only those signs required for facility safety or required by law and comply with Umatilla County design requirements for signs as described in UCDC Sections 152.545 through 152.548. (App BB-2) [Amendment #4]

(i) Design and construct the operation and maintenance building to be generally consistent with the character of similar buildings used by commercial farmers or ranchers. Upon retirement of the energy facility, the operations and maintenance building must be removed or converted to farm use, in accordance with Condition 19. [Amendment #3 and #4]

(38) To restrict public access to turbine towers, the certificate holder shall install locked access doors accessible only to authorized project staff. (App BB-3)

(39) If any state-listed threatened, endangered or candidate plant species are found during the pre-construction surveys described in condition (55), the certificate holder shall use appropriate measures to protect the species and mitigate for impacts from construction, operation and retirement of the facility.

See condition (55).

(40) In constructing and operating the facility, the certificate holder shall make reasonable efforts not to disturb the farming and ranching activities on adjacent lands. (App K-6) [AMD5]

(41) If the certificate holder elects to use a bond to meet the requirements of Conditions (80) or (109), 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 assure 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. [Amendments #1, #2 #4, and #5]

See Condition (2).

## 2. Conditions That Must Be Met Before Construction Begins

(42) The certificate holder shall notify the Department of Energy in advance of any initial road improvement work that does not meet the definition of "construction" in OAR 345-001-0010(10) or ORS 469.300(6) and shall provide to the Department plans of the work and evidence that its value is less than \$250,000. (App B-21) [Amendment #4; AMD5]

(43) [Condition removed by Amendment #4]

(44) The certificate holder shall locate roads to minimize disturbance and maximize transportation efficiency and to avoid sensitive resources and unsuitable topography. The certificate holder shall use existing county roads and private farm roads to the maximum extent feasible. The certificate holder shall coordinate farm road improvements with landowners to minimize crop impacts and to assure that the final road provides useful access, where possible, to the landowners' fields. (App B-6)

(45) The certificate holder shall videotape all Umatilla County roads used as access to the facility and shall require construction contractors to enter into a written agreement with

Umatilla County stating that all roads used by the contractor will be restored to as good or better condition than they were before construction. (App U-24)

- (46) The certificate holder shall notify the Department of Energy of the identity and qualifications of major construction contractors for the facility. The certificate holder shall select major construction contractors based on a proven record of environmental compliance and stewardship, a clean record in terms of other regulatory obligations and other appropriate factors. (App D-3, 4) [Amendment #4; AMD5]
- (47) The certificate holder shall contractually require all construction contractors and subcontractors involved in the construction of the facility 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.  
See condition (2). [AMD5]
- (48) The certificate holder shall require that all on-site construction contractors prepare a site health and safety plan before beginning construction activities. The certificate holder shall ensure that the plan informs employees and others onsite what to do in case of emergencies and includes the locations of fire extinguishers and nearby hospitals, important telephone numbers and first aid techniques. (App U-25) [AMD5]
- (49) The certificate holder shall design the facility in accordance with seismic design provisions given in the Oregon Building Code. The certificate holder shall identify localized areas of  $S_C$  and  $S_D$  soil types and assure that any structures to be built in those areas are designed according to the code. The certificate holder shall design all components constructed after 2008 to meet the current Oregon Structural Specialty Code (OSSC 2007) and the 2006 International Building Code. [Amendment #4; AMD5]
- (50) The certificate holder shall provide the Department of Energy with design specifications showing the locations of turbines and type of foundations to be employed and demonstrating that the following conditions have been satisfied (OAR 345-022-0020):
  - (a) If a turbine is located within 50 feet of a slope steeper than  $30^\circ$ , the stability of the slope has been reviewed by the foundation designer to confirm that either (i) the slope has a safety factor of at least 1.1 during the maximum probable seismic event or (ii) the safety factor is less than 1.1, but ground displacements will not adversely affect the stability of the wind turbine. Slopes shall be evaluated in the field for each proposed turbine location.
  - (b) The foundation designer's review of slope displacement during a seismic event has been made using a pseudo-static horizontal coefficient of 0.13g and, if the safety factor is less than 1.1, the foundation designer has shown that (i) the movement will not intersect the turbine, (ii) the movement will intersect the turbine but will not affect its stability, or (iii) additional stabilization measures, such as anchor tie-downs or ground support systems, will be employed to maintain stability.
  - (c) If a turbine is located where power generating or other requirements preclude sufficient setback distances to avoid intersection of a moving slope with the turbine foundation, the foundation designer has demonstrated that the turbine foundation will withstand loads from the moving soil or has been equipped with ground support systems that will withstand loads from moving soil.

(d) The foundation designer has confirmed that the turbines and conduit can tolerate some movement without instability or breakage if a mapped fault were to rupture.

[Amendment #4]

(51) In modifying slope angles for roads or other facilities, the certificate holder shall assure that the foundation designer has achieved a factor of safety of 1.5 or greater for permanent structures and a factor of safety of 1.3 or greater for temporary structures. (OAR 345-022-0020)

(52) The certificate holder shall design the facility to avoid or minimize adverse impacts to wildlife by measures including but not limited to the following (App P-41):

- (a) Siting the turbines on ridges outside of migration flyways.
- (b) Siting turbines to avoid placing turbines in saddle locations along ridges (where bird use is typically higher).
- (c) Avoiding the use of overhead collector lines. [Amendments #2 and #4]

(53) This condition does not apply to Stateline 2. The certificate holder shall survey the status of known Swainson's hawk nests within the vicinity of proposed construction before the projected date for construction to begin. If active nests are found, and construction is scheduled to begin before the end of the sensitive nesting and breeding season (June 1 to August 31), the certificate holder shall develop a no-construction buffer in consultation with ODFW and shall not engage in construction activities within the buffer until the sensitive season has ended. If construction continues into the sensitive nesting and breeding season for the following year, the certificate holder shall not engage in construction activities within the buffer around active nests until the sensitive season has ended.

[Amendments #2,#4; AMD5]

(54) This condition does not apply to Stateline 2. The certificate holder shall conduct appropriate pre-construction nest surveys for burrowing owls if construction is scheduled to occur during the sensitive period (March 15 to August 30). The certificate holder shall leave a no-construction buffer, developed in consultation with ODFW, around any active nests during the sensitive period. [Amendments #2,#4, AMD5]

(55) This condition does not apply to Stateline 2. The certificate holder shall conduct pre-construction surveys for state-listed threatened, endangered or candidate plant species in all areas not included in earlier botanical surveys of the analysis area. If any listed plants are found, the certificate holder will notify the Department of Energy and consult with the Oregon Department of Agriculture regarding appropriate measures to protect the species and mitigate for impacts from construction, operation and retirement of the facility. (App Q-7) [Amendment #4; AMD5]

(56) This condition does not apply to Stateline 2. The certificate holder shall conduct appropriate pre-construction surveys for the presence of Washington ground squirrels in construction zones that have suitable habitat. Construction zones include the areas of permanent and temporary disturbance and a 175-foot surrounding buffer in which there may be incidental construction impacts. If squirrel activity is found, the certificate holder shall notify the Department of Energy and develop an appropriate no-construction buffer and other appropriate mitigation measures in consultation with the Department and ODFW. In addition, the certificate holder shall map and stake sensitive areas to be avoided during construction as required by Condition (63). [Amendments #2,#4; AMD5]

### 3. Conditions That Apply During Construction

(57) The certificate holder shall report to the Council any change of major construction contractors.

See condition (8).

(58) The certificate holder shall take steps to prevent fires during construction including but not limited to (App U-25):

- (a) Establishing roads before accessing the site to allow vehicles to stay away from grass.
- (b) Using diesel vehicles whenever possible to prevent potential ignition by catalytic converters.
- (c) Avoiding idling vehicles in grassy areas.
- (d) Keeping cutting torches and similar equipment away from grass.
- (e) Making sure that all construction personnel receive appropriate fire-safety instruction from qualified local fire departments or qualified fire-fighting trainers on the job site.
- (f) Making sure that fire-fighting equipment is available at all active parts of the job site.

[AMD5]

(59) The certificate holder shall require the foundation designer to inspect excavations during construction of foundations for the turbines and other facilities to confirm that geologic conditions are appropriate for supporting the turbines during gravity, seismic and wind loading. (OAR 345-022-0020)

(60) 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 facility's National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit. The certificate holder shall include in the ESCP any procedures necessary to meet local erosion and sediment control requirements or stormwater management requirements. (App B-7, 13, E-3, P-41) [AMD5]

(61) The certificate holder shall mitigate potential adverse impacts to soils from erosion and compaction by measures including but not limited to the following (App H-17, I-4, 5):

- (a) Maintaining vegetative buffer strips between the areas impacted by construction activities and any receiving waters.
- (b) Installing sediment fence/straw bale barriers at locations shown on the plans.
- (c) Wherever feasible, constructing roadways so that surface drainage continues along natural drainage patterns with minimal diversions through ditches and culverts.
- (d) Working with the Umatilla County Public Works Department and the local Natural Resources Conservation Service office to design water bars and other management practices to slow the flow of water on newly constructed repaired roads.
- (e) Straw mulching and discing at locations adjacent to the road that have been impacted.
- (f) Providing temporary sediment traps downstream of intermittent stream crossings.
- (g) Providing sediment type mats downstream of perennial stream crossings.
- (h) Planting designated seed mixes at impacted areas adjacent to the roads.
- (i) Installing sediment fencing along the downslope side of construction equipment staging areas.
- (j) Seeding all areas that are impacted by construction and reseeding as necessary to establish a healthy cover crop.

- (k) Leaving sediment fencing, check dams and other erosion control measures in place until the impacted areas are well vegetated and the risk of erosion has been eliminated.
- (l) Limiting truck and heavy equipment traffic, to the extent possible, to improved road surfaces, and thereby limiting soil compaction and disturbances.
- (m) Scarifying and reseeding compacted areas after construction is completed.
- (n) Using appropriate erosion control methods to limit soil loss due to water and wind action.
- (o) Covering roads and turbine pads with gravel immediately following exposures, thereby limiting the time for wind or water erosion. (App I-2, 3)
- (p) Using water for dust suppression during construction. (App O-1)

[AMD5]

(62) The certificate holder shall place underground electrical and communications cables at a minimum depth of three feet below grade in trenches along the length of each turbine string corridor and in some cases in trenches from the end of one turbine string to the end of an adjacent turbine string. The certificate holder shall excavate trenches and segregate the topsoil from subsoil. After installing the electrical or communications cables and within two weeks of trenching, the certificate holder shall backfill the trenches and replace topsoil on top. The certificate holder shall reseed the area with native grasses or other plants appropriate to the location. (App B-8, I-2, W-2)

(63) The certificate holder shall mitigate possible impacts to wildlife by measures including but not limited to the following (App P-42 through 45, Q-10, 11):

- (a) Preparing maps to show sensitive areas that are off-limits during the construction phase, distributing the maps to construction staff and having a biologist flag sensitive areas as needed.
- (b) Minimizing road construction and vehicle use where possible.
- (c) Posting speed limit signs throughout the construction zone.
- (d) Instructing construction personnel (including all construction contractors and their personnel) on sensitive wildlife of the area and on required precautions to avoid injuring or destroying wildlife.
- (e) Instructing construction personnel (including all construction contractors and their personnel) to watch out for wildlife while driving through the project area, to maintain reasonable driving speeds so as not to harass or accidentally strike wildlife and to be particularly cautious and drive at slower speeds in a period from one hour before sunset to one hour after sunrise when some wildlife species are the most active.
- (f) Requiring all construction personnel to report any injured or dead wildlife detected at the facility site.
- (g) Requiring all construction personnel to respect all staked wildlife areas and associated no-construction buffer areas.

[AMD5]

(64) To avoid creating habitat for raptor prey near turbine towers, the certificate holder shall spread gravel on all above ground portions of the turbine pads to reduce the potential for weed infestation. (App BB-5)

(65) The certificate holder shall mitigate possible impacts to fish and wildlife habitat by measures including but not limited to the following (App P-42 through 45, Q-10, 11):

- (a) Avoiding vegetation removal wherever possible.

- (b) Limiting construction activities to within public road right-of-ways where possible.
- (c) Using best management practices to prevent erosion of soil into stream channels.
- (d) Controlling invasive, weedy plant species during maintenance of project facilities.
- (e) Restoring temporarily disturbed sites to pre-construction condition or better with native seed mixes as described for temporarily disturbed areas in the *Revegetation Plan* included in the Final Order on Amendment #4 as Attachment B and as revised from time to time. [Amendments #1 and #4]
- (f) Developing re-vegetation plant mixes and habitat enhancement locations in consultation with ODFW and the Umatilla County weed control board.
- (g) Monitoring re-vegetated areas to ensure successful establishment of new vegetation.
- (h) Monitoring turbine strings, roads and other disturbed areas regularly to prevent the spread of noxious weeds.
- (i) Developing measures to reduce the potential spread of noxious weeds in consultation with the weed control board of Umatilla County.

[AMD5]

- (66) This condition applies to Stateline 1 only. To mitigate for the permanent elimination of one-half acre of Category 2 habitat, the certificate holder shall control weeds and enhance habitat of one acre of weed-infested upland habitat with native plants. The certificate holder shall carry out enhancement activities as described for habitat enhancement areas in the *Revegetation Plan* referenced in Condition 65. The certificate holder shall acquire the legal right to create and maintain the enhancement area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department of Energy. The certificate holder shall determine the location of this habitat enhancement area in consultation with ODFW and landowners.  
(App P-44) [Amendments #1 and #4]
- (67) This condition does not apply to Stateline 3. To mitigate for the permanent elimination of approximately 48 acres of Category 3 habitat, the certificate holder shall control weeds and enhance habitat on an equal area of weed-infested land in the project vicinity. The certificate holder shall carry out enhancement activities as described for habitat enhancement areas in the *Revegetation Plan* referenced in Condition 65. The certificate holder shall acquire the legal right to create and maintain the enhancement area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department of Energy. The certificate holder shall determine the location of this habitat enhancement area in consultation with ODFW and landowners. (App P-44) [Amendments #1 and #4]
- (68) To minimize impacts to temporarily disturbed Category 6 habitat areas, the certificate holder shall use measures including but not limited to the following (App P-45):
  - (a) Replacing agricultural topsoil to its pre-construction condition.
  - (b) Using best management practices to prevent loss of topsoil during construction.
  - (c) Reseeding native habitats with a native seed mix that includes at least some seed collected from the area as described for temporarily disturbed habitats in the *Revegetation Plan* referenced in Condition 65. [Amendments #1 and #4]
  - (d) Controlling noxious weeds in areas disturbed by construction activities.

[AMD5]

(69) The certificate holder shall not place any part of the facility within any Washington ground squirrel (WGS) colony or on potential Washington ground squirrel burrows. The certificate holder shall have an on-site wildlife monitor who will flag habitat required for WGS survival (Category 1), conduct pre-construction surveys to determine the distribution of WGS in the area and ensure that construction personnel do not enter the area. The monitor shall conduct post construction monitoring to document distribution of the WGS in the area. [Amendments #2,#4; AMD5]

(70) To reduce potential injury or fatality of migratory birds, the certificate holder shall (App Q-10):

- (a) Locate turbines away from saddles in long ridges.
- (b) Locate turbines on the top or slightly downwind side of distinct ridges and set back from the upwind (prevailing) side.
- (c) Use monopole design for all turbine and meteorological towers.

(71) The certificate holder shall implement a waste management plan during construction that includes but is not limited to the following measures (App V-2):

- (a) Collecting steel scrap and transporting it to a recycling facility.
- (b) Recycling wood waste to the greatest extent feasible, depending on size and quantity of scrap or leftover materials.
- (c) Using concrete waste as fill on-site or at another site or, if no reuse option is available, transporting it to a local landfill.
- (d) Recycling packaging wastes (such as paper and cardboard).
- (e) Collecting non-recyclable waste and transporting it to a local landfill.

(72) The certificate holder shall require that disposal of waste concrete on-site is conducted in accordance with OAR 340-093-0080, other applicable regulations and this condition. The construction contractor may bury waste concrete on-site with the permission of the landowner in the following manner: by placing the waste concrete in an excavated hole, covering it with at least three feet of topsoil and grading the area to match existing contours so that all buried concrete is at least three feet below grade. (App V-3, 4).

(73) The certificate holder shall provide portable toilets for onsite sewage handling during construction and make sure that they are pumped and cleaned regularly by a licensed pumper who is qualified to pump and clean portable toilet facilities. The certificate holder shall minimize the generation of wastes from construction through detailed estimating of materials needs and through efficient construction practices. The certificate holder shall recycle any wastes generated during construction as much as feasible and shall collect any non-recyclable wastes and transport such wastes to a local landfill. (App B-13, G-3, V-2) [AMD5]

(74) The certificate holder shall have a full-time on-site assistant construction manager, qualified in environmental compliance and familiar with all site certificate conditions, to observe contractor waste management practices and to assure compliance with applicable regulations and construction site policy. (App V-4) [AMD5]

(75) The certificate holder shall post high-visibility no-entry barriers around recorded cultural and archaeological sites and shall ensure that construction workers stay away from the vicinity of the sites. The certificate holder shall locate barriers to create a buffer with a minimum width of 30 meters between the sites and construction activities. The certificate

holder shall have a qualified cultural resource expert to monitor the avoidance of the no-entry areas by construction workers and to monitor ground disturbing activities. The certificate holder shall select a cultural resource expert chosen by the Confederated Tribes of the Umatilla Indian Reservation, if available, or shall select a qualified cultural resource expert, subject to Department approval, to conduct the monitoring. [Amendment #4]

- (76) If previously unidentified cultural resources are encountered during construction, the certificate holder shall halt earth-disturbing activities in the immediate vicinity of the find, in accordance with Oregon state law (ORS 97.745 and 358.920), and shall notify the Department of Energy, the Oregon State Historic Preservation Officer (SHPO) and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). The certificate holder shall have a qualified archaeologist evaluate the discovery and recommend subsequent courses of action in consultation with the CTUIR and the SHPO. If human remains are discovered, the certificate holder shall halt all construction activities in the immediate area and shall notify the Department, SHPO, CTUIR, the County Medical Examiner and the State Police. [Amendment #4]
- (77) The certificate holder shall include traffic control procedures in contract specifications for construction of the facility. The certificate holder shall require flaggers to be at appropriate locations at appropriate times during construction to direct traffic and to ensure minimal conflicts between harvest and construction vehicles. (App U-24) [AMD5]
- (78) The certificate holder shall confine the noisiest construction activities to the daylight hours. (App X-8) [AMD5]
- (79) This condition does not apply to Stateline 3. The certificate holder shall construct the cable crossing of Vansycle Canyon at a time when the stream is dry. The certificate holder shall remove no more than approximately 7.5 cubic yards of material from the streambed crossing and shall replace a like amount of fill material after the cable has been laid, restoring the area similar to the original contours of the streambed. (Linehan, July 23 letter, 3) [Amendment #4]

#### **4. Conditions That Must Be Met Before Operation Begins**

- (80) This condition applies to Stateline 1&2 only. Within 90 days after the effective date of the Fourth Amended Site Certificate, the certificate holder shall submit to the State of Oregon through the Council a bond or letter of credit in the amount of \$6.160 million (1<sup>st</sup> Quarter 2009 dollars), to be adjusted to the date of issuance as described in (a), naming the State of Oregon, acting by and through the Council, as beneficiary or payee.

(a) Subject to approval by the Department, the certificate holder shall adjust the amount of the bond or letter of credit on an annual basis using the following calculation:

(i) Adjust the Subtotal (1<sup>st</sup> Quarter 2009 dollars) shown in Table 1 of the Final Order on Amendment #4 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 index value for 1<sup>st</sup> Quarter 2009 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 1<sup>st</sup> Quarter 2009 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 (ii) for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost (ii) for the adjusted future developments contingency.

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

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

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

(d) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the energy facility.

(e) The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under Condition (8).

See Conditions (19) and (41).

[Amendment #4]

(81) After construction is complete, the certificate holder shall restore the county roads to at least their pre-project condition, to the satisfaction of the county public works department. (App B-6, 9) [AMD5]

(82) The certificate holder shall grade and reseed laydown areas to wheat or native grasses as necessary to restore those areas to their pre-construction condition (App B-10). [AMD5]

(83) For any materials disposed of as fill on site, the certificate holder shall conduct such disposal with the approval of the landowner and in accordance with OAR 340-093-0080 and other applicable regulations. (App G-3, V-3) [AMD5]

(84) For the purposes of this site certificate, wind turbine tower locations are analogous to location of permanent rights-of-way for pipelines or transmission lines as described in OAR 345-027-0023(5). The Council approves the corridor described in the final order for construction of turbine strings. As required under OAR 345-027-0020(2) and Condition 13, the certificate holder shall submit to the Department of Energy a legal description of the location where the certificate holder has built turbine towers and other parts of the facility. Within 90 days after beginning operation of any turbines that are added to the facility by amendment of the site certificate, the certificate holder shall submit to the Department a legal description of the location of any additional turbine towers and related or supporting facilities allowed by the amendment. The site of the facility is the area identified by the legal descriptions required by this condition. Within 90 days after beginning facility operation, the certificate holder shall provide to the Department and the Umatilla County Planning Department the actual latitude and longitude location or Stateplane NAD 83(91) coordinates of each turbine tower, connecting lines and transmission lines and a summary of as built changes in the facility from the original plan. (OAR 345-027-0020(2) and (3)) [Amendments #1 and #4]

See Condition (13).

## 5. Conditions That Must Be Met During Operation

(85) The certificate holder shall prepare and maintain a site health and safety plan that informs employees and others onsite what to do in case of emergencies and includes the locations of fire extinguishers and nearby hospitals, important telephone numbers and first aid techniques. (App U-25)

(86) The certificate holder shall recycle solid waste generated during operation of the facility as much as feasible and shall collect non-recyclable waste and transport it to a local landfill. (App V-2)

(87) This condition applies to Stateline 1&2 only. The certificate holder shall provide portable toilets for use at the satellite O&M building and shall make sure that they are pumped and cleaned regularly by a licensed pumper who is qualified to pump and clean portable toilet facilities. The certificate holder must contact the Oregon Department of Environmental Quality if the on-site septic system is to be used. (App O-2) [Amendment #4]

(88) If the turbine blades need to be washed, the certificate holder shall use no more than 500 gallons of water per turbine, trucked to the site by a contractor and purchased from a source with a valid water right. The certificate holder shall use high-pressure cold water only and shall not use chemicals or additives in the wash water. (App O-2) [Amendment #1]

(89) If any new nesting or denning sites for wildlife species of concern are located, the certificate holder shall prepare maps indicating off-limit areas. In addition, the certificate holder shall minimize road construction and vehicle use where possible. (P-42)

(90) The certificate holder shall mitigate possible impacts to wildlife by measures including but not limited to the following (App P-43, Q-10):

- (a) Instructing all personnel on sensitive wildlife of the area and on required precautions to avoid injuring or destroying wildlife.
- (b) Instructing all personnel to watch out for wildlife while driving through the project area, to maintain reasonable driving speeds so as not to harass or accidentally strike wildlife and to be particularly cautious and drive at slower speeds in a period from one hour before sunset to one hour after sunrise when some wildlife species are the most active.
- (c) Requiring all personnel to report any injured or dead wildlife detected at the facility site.

(91) The certificate holder shall mitigate possible impacts to fish and wildlife habitat by measures including but not limited to the following (App P-43, Q-10):

- (a) Using best management practices to prevent erosion of soil into stream channels.
- (b) Controlling invasive, weedy plant species during maintenance of project facilities.
- (c) Monitoring re-vegetated areas to ensure successful establishment of new vegetation.

(92) The certificate holder shall mitigate potential adverse impacts to soils from erosion by measures including but not limited to the following (App I-3 through 5):

- (a) Using drainage collection procedures to capture surface water that collects on, and drains from, gravel surfaces or structures as a result of precipitation and routing the water to drainage ditches lined with quarry stone or other similar materials.
- (b) Using sand bags, straw bales and silt fences as needed to reduce erosion from precipitation during repair of underground cables or other soil-disturbing repairs.
- (c) If areas of erosion are observed during operation, implementing mitigation and reclamation measures.

(93) The certificate holder shall conduct wildlife monitoring as described in the *Wildlife Monitoring and Mitigation Plan (WMMP)*, included in the Final Order on Amendment #5 as Attachment G and as revised from time to time. Subject to approval by the Department of Energy as to professional qualifications, the certificate holder shall hire qualified wildlife consultants to carry out the monitoring.

The certificate holder shall conduct 1-year of post-construction fatality monitoring in accordance with the protocol included in the WMMP following completion of construction activities for the Vansycle II facility modifications, as approved in the ~~Sixth~~<sup>Fifth</sup> Amended Site Certificate. Additional fatality monitoring studies and necessity of additional mitigation shall be determined based on the results of the 1-year post construction fatality monitoring study.

(OAR 345-022-0060) [Amendments #1, #4; AMD5; ~~AMD6~~]

(94) If analysis of monitoring data indicates impacts to wildlife or wildlife habitat that the certificate holder has not adequately addressed by mitigation and if these impacts result in a loss of habitat quantity or quality, the certificate holder shall mitigate for the loss of habitat quality by measures approved by the Oregon Department of Energy. (OAR 345-022-0060) [Amendment #4; AMD5]

(95) The certificate holder shall inspect turbine blades on a regular basis for signs of wear or potential failure. (App BB-1) [AMD5]

(96) The certificate holder shall make sure that all on-site employees receive annual fire prevention and response training by a professional fire-safety training firm. The certificate

holder shall prohibit employees from smoking outside of company vehicles during dry summer months and shall require employees to keep vehicles on roads and off dry grassland during the dry months unless necessary for work purposes. The certificate holder shall not engage in welding, cutting, grinding or other flame or spark-producing operations near the turbines. The certificate holder shall equip each company vehicle on site with a fire extinguisher, water spray can, shovel, Emergency Response procedures book and a two-way radio for immediate communications with the O&M facility. The certificate holder shall have staff in the local area on call at all times to respond in case of fire or other emergency. The certificate holder shall supply all local fire departments with maps of and gate keys to the facility. (App B-12) [AMD5]

## **VI. CONDITIONS ADDED BY AMENDMENT #1** [Amendments #1 and #4]

The conditions listed in this section include conditions based on representations in the request for Amendment #1 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). [Amendment #4]

Except as specifically noted, these conditions apply to all phases of the Stateline Wind Project. In applying the conditions in this section, “certificate holder” means FPL Vansycle with regard to Stateline 1&2 and FPL Stateline with regard to Stateline 3. [Amendment #4]

### **1. General Conditions**

- (97) This condition applies to Stateline 2 only. The certificate holder shall begin construction of Stateline 2 within six months after the effective date of the First Amended Site Certificate. The certificate holder shall complete construction of Stateline 2 before March 1, 2005. Under OAR 345-027-0070, an amended site certificate is effective upon execution by the Council Chair and the applicant. Completion of construction occurs upon the date commercial operation of Stateline 2 begins. The Council may grant an extension of the construction beginning or completion deadlines in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Amendments #2 and #4]
- (98) [Condition removed by Amendment #4]
- (99) Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0100 apply to any transfer of ownership that requires a transfer of the site certificate. (OAR 345-027-0020(15) [Amendment #4]
- (100) If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council shall notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department of Energy 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 OAR 345-027-0020(8) 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 pay any additional cost necessary to restore the site to a useful, non-hazardous condition. After completion of site restoration, the Council shall issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan. (OAR 345-027-0020(16) [Amendment #4]

## **2. Conditions That Must Be Met Before Construction Begins**

**(101)** This condition applies to Stateline 2 only. The certificate holder shall not engage in construction activities for Stateline 2 facilities, including the movement of heavy trucks and equipment, within a ¼-mile buffer around an identified ferruginous hawk nest tree during the sensitive period of the nesting season (March 20 to August 15), except as provided in this condition. The certificate holder shall use a protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether the nest is occupied. The certificate holder may begin construction activities before August 15 if the nest is not occupied. If the nest is occupied, the certificate holder shall use a protocol approved by ODFW to determine when the young are fledged (independent of the core nest site). With the approval of ODFW, the certificate holder may begin construction before August 15 if the young are fledged. During the specified nesting season, the certificate holder may use the road into the site with vehicles that are one ton in capacity or smaller; conduct turbine, turbine tower, blade or met tower construction activities that are not visible above the horizon from the vantage point of the ferruginous hawk nest; and use the road one time to transport heavy equipment off the site. [Amendments #2 and #4]

**(102)** [Condition removed by Amendment #4]

## **3. Conditions That Apply During Construction**

**(103)** To minimize the risk of fire, the certificate holder shall:

- (a) Construct turbines, towers and pads of fire retardant materials.
- (b) Bury electrical cables.
- (c) Use enclosed, locked pad-mounted transformer structures.
- (d) Include built-in fire prevention measures in turbines.
- (e) Not store combustible materials at the Stateline site.

**(104)** This condition applies to Stateline 2 only. To mitigate for the permanent elimination of approximately 1 acre of Category 3 and 4 habitat, the certificate holder shall enlarge the habitat enhancement area described in Condition (67) by 1 acre. [Amendment #4]

## **4. Conditions That Must Be Met During Operation**

**(105)** This condition applies to Stateline 2 only. The certificate holder shall enter into an agreement with the landowner of a property identified as 84301 Stockman Road, Helix, Oregon, requiring that the structure remain uninhabited during construction. The certificate holder shall continue the no-occupation agreement until retirement of the facility unless the certificate holder demonstrates to the satisfaction of the Department that the facility complies with the applicable noise control regulations under OAR 340-035-0035. The certificate holder may demonstrate compliance with the regulations as to the increase in

ambient statistical noise levels by entering into a legally effective easement or real covenant with the owner of the property identified as 84301 Stockman Road, Helix, Oregon, pursuant to which the owner authorizes the certificate holder's operation of the facility to increase ambient statistical noise levels L<sub>10</sub> and L<sub>50</sub> by more than 10 dBA at the appropriate measurement point. A legally effective easement or real covenant shall: 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. If such easement or real covenant is not in effect, then the certificate holder shall demonstrate to the satisfaction of the Department, based on modeling or measurements performed in compliance with OAR 340-035-0035, that an easement or real covenant is not necessary to comply with those regulations. [Amendments #3 and #4].

## **VII. CONDITIONS ADDED BY AMENDMENT #2** [Amendments #2 and #4]

The conditions listed in this section include conditions based on representations in the request for Amendment #2 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). These conditions apply to Stateline 3 only. In applying the conditions in this section, "certificate holder" means FPL Stateline. [Amendment #4]

### **1. General Conditions**

(106) The certificate holder shall begin construction of Stateline 3 by October 1, 2009. The certificate holder shall complete construction of Stateline 3 before December 31, 2010. Under OAR 345-027-0070, an amended site certificate is effective upon execution by the Council Chair and the applicant. Completion of construction occurs upon the date commercial operation of Stateline 3 begins. The Council may grant an extension of the construction beginning or completion deadlines in accordance with OAR 345-027-0030 or any successor rule in effect at the time the request for extension is submitted. [Amendments #3 and #4]

(107) [Condition removed by Amendment #4]

(108) The certificate holder shall take reasonable steps to reduce or manage human exposure to electromagnetic fields, including but not limited to:

(a) Designing and operating the transmission lines so that maximum current (amps per conductor) would not exceed the following levels: For 34.5-kV underground lines, 560 amps and for 230-kV transmission lines, 753 amps. [Amendment #4]

(b) Providing to landowners a map of underground and overhead transmission lines on their property and advising landowners of possible health risks.

### **2. Conditions That Must Be Met Before Construction Begins**

(109) Before beginning construction of Stateline 3, 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 either \$5.911 million (in 1<sup>st</sup> Quarter 2009 dollars), to be adjusted to the date of issuance as described in (b), or the amount

determined as described in (a). The certificate holder shall adjust the amount of the bond or letter of credit on an annual basis thereafter as described in (b).

(a) The certificate holder may adjust the amount of the bond or letter of credit based on the final design configuration of Stateline 3 by applying the unit costs and general costs illustrated in Table 3 in the Final Order on Amendment #4 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) Subject to approval by the Department, the certificate holder shall adjust the amount of the bond or letter of credit on an annual basis using the following calculation:

(i) Adjust the Subtotal component of the initial bond or letter of credit amount (expressed in 1<sup>st</sup> Quarter 2009 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 index value for 1<sup>st</sup> Quarter 2009 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 1<sup>st</sup> Quarter 2009 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 (ii) for the adjusted administration and project management costs and 10 percent of the adjusted Gross Cost (ii) for the adjusted future developments contingency.

(iv) Add the adjusted Gross Cost (ii) to the sum of the percentages (iii) to determine the adjusted Full Cost, 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.

(e) The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council, as required by Condition (8).

(f) The bond or letter of credit shall not be subject to revocation or reduction before retirement of the Stateline 3 site.

[Amendment #4]

**(110)** 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 its designs and specifications are consistent with applicable codes and standards.

**(111)** [Condition removed by Amendment #4]

### **3. Conditions That Apply During Construction**

**(112)** Before beginning construction and after considering all micrositing factors, the certificate holder shall provide to the Department and to the Oregon Department of Fish and Wildlife (ODFW) detailed maps of the facility site, showing the final design locations where the certificate holder proposes to build facility components and the habitat categories of all areas that would be affected during construction. In addition, the certificate holder shall provide a table showing the acres of temporary and permanent habitat impact by habitat category and subtype, similar to Table 8 in the Final Order on Amendment #4. In classifying the affected habitat into habitat categories, the certificate holder shall consult with the ODFW. The certificate holder shall not begin ground disturbance in an affected area until the habitat assessment has been approved by the Department. The Department may employ a qualified contractor to confirm the habitat assessment by on-site inspection. Based on the approved habitat assessment, the certificate holder shall calculate the mitigation area requirement and shall carry out enhancement activities as described in the *Stateline 3 Habitat Mitigation Plan* included in the Final Order on Amendment #4 as Attachment C and as revised from time to time. The certificate holder shall acquire the legal right to create and maintain the enhancement area for the life of the facility by means of an outright purchase, conservation easement or similar conveyance and shall provide a copy of the documentation to the Department of Energy. The certificate holder shall determine the location of this habitat enhancement area in consultation with ODFW and landowners.

[Amendment #4]

**(113)** To protect the public from electrical hazards including electric and magnetic field exposure, the certificate holder shall:

(a) Enclose the substation with a seven-foot-tall chain link fence with barbed wire at the top pointing out at a 45-degree angle.

(b) Attach the 230-kV aboveground transmission lines to H-frame structures that consist of two wooden poles connected by cross-members with a typical overall height of 61 feet and a minimum design ground clearance of 25 feet to the lowest conductor as described in the Request for Amendment #4.

(c) Design and construct the transmission lines so that:

(i) 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, and

(ii) Induced voltages during operation are as low as reasonably achievable.

[Amendment #4]

**(114)** To deter raptors from perching on transmission support structures near the wind turbines, the certificate holder shall install anti-perching devices on all proposed support structures within one-half mile of any turbine, unless the top of the support structure is below the base of the turbine tower due to topography. Wherever feasible, the certificate holder shall use “spike-type” devices instead of “triangle-type” devices. [Amendment #4]

**(115)** To protect raptors, the certificate holder shall design structures for 230-kV transmission lines to conform to the guidelines of the Avian Power Line Interaction Committee so that electrical conductors are spaced far enough apart to reduce the risk of bird electrocution.

[Amendment #4]

**(116)** [Condition removed by Amendment #4]

**(117)** The certificate holder shall not engage in construction activities for Stateline 3 facilities, including the movement of heavy trucks and equipment, within a  $\frac{1}{4}$ -mile buffer around known ferruginous hawk nests during the sensitive period of the nesting season from (March 20 to August 15), except as provided in this condition. The certificate holder shall use a protocol approved by the Oregon Department of Fish and Wildlife (ODFW) to determine whether the nest is occupied. The certificate holder may begin construction activities before August 15, if the nest is not occupied. If the nest is occupied, the certificate holder shall use a protocol approved by ODFW to determine when the young are fledged (independent of the core nest site). With the approval of ODFW, the certificate holder may begin construction before August 15, if the young are fledged.

**(118)** The certificate holder shall construct stream crossings substantially as described in the Final Order on Amendment #4. In particular, the certificate holder shall not remove material from waters of the state or add new fill material to waters of the state such that the total volume of removal and fill exceeds 50 cubic yards for the project as a whole.

[Amendment #4]

#### **4. Conditions That Must Be Met During Operation**

**(119)** The certificate holder shall perform frequent maintenance to keep the substation transformer in good repair and in reliable operating condition.

**(120)** The certificate holder shall verify that the actual sound power level output of the wind turbines constructed for Stateline 3 meets the manufacturer's warranty. This verification may consist of field measurement or other means of verification satisfactory to the Department of Energy. The certificate holder shall include the verification in the first annual report following construction of any Stateline 3 turbines. [Amendment #4]

#### **VIII. CONDITIONS ADDED BY AMENDMENT #3**

**(121)** [Condition removed by Amendment #4]

**(122)** [Condition removed by Amendment #4]

#### **IX. CONDITIONS ADDED BY AMENDMENT #4**

Except as specifically noted, the conditions in this section apply to Stateline 3<sup>5</sup> only. In applying the conditions in this section, "certificate holder" means FPL Stateline. In applying the conditions in this section, "certificate holder" means FPL Vansycle with regard to Stateline 1&2 and FPL Stateline with regard to Stateline 3. [Amendment #4]

**(123)** The certificate holder shall design and construct Stateline 3 in compliance with the County design requirements as described in Umatilla County Development Code Sections 152.010, 152.011, 152.015, 152.018, 152.063(E) and 152.616(HHH)(5)(F) in effect as of October 24, 2008. [Amendment #4]

---

<sup>5</sup> Note that Site Certificate Amendment #5 changed the name of "Stateline 3" to "Vansycle II," however, the name has not been changed in Section IX of the site certificate as these conditions were added at the time of Amendment #4, when the name "Stateline 3" was still in use.

(124) The certificate holder shall ensure that construction contractors use a transportation route reviewed and approved by the Umatilla County Public Works Director for all oversized and heavy load transport vehicles. [Amendment #4]

(125) The certificate holder shall record a Covenant Not to Sue with regard to generally accepted farming practices as required by Umatilla County Development Code Section 152.616(HHH)(2)(E). [Amendment #4]

(126) The certificate holder shall construct all Stateline 3 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 Umatilla 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 not locate equipment associated with the temporary batch plant within 50 feet of a public road, county road or utility right of way.

[Amendment #4]

(127) The certificate holder shall deliver a copy of the annual report required under Condition 8 to the Umatilla County Planning Commission on an annual basis unless specifically discontinued by the County. [Amendment #4]

(128) During construction, the certificate holder shall position a 3,000-gallon water truck on-site while personnel are present and actively working. [Amendment #4]

(129) During operation, the certificate holder shall discharge sanitary wastewater generated at the Stateline 3 O&M building to a licensed on-site septic system in compliance with county permit requirements. The certificate holder shall locate the septic system more than 100 feet from any streams, lakes or wetlands. The certificate holder shall design the septic system for a discharge capacity of less than 2,500 gallons per day. [Amendment #4]

(130) During operation, the certificate holder shall obtain water for on-site uses from a wells located at the Stateline 3 O&M building, subject to compliance with applicable permit requirements. The certificate holder shall not use more than 5,000 gallons of water per day from the on-site well. [Amendment #4]

(131) The certificate holder shall avoid permanent and temporary disturbance to all Category 1 and Category 2 habitat within the Stateline 3 site boundary. [Amendment #4]

(132) Before beginning construction, the certificate holder shall conduct a site-specific geotechnical investigation and shall report its findings to the Oregon Department of Geology & Mineral Industries (DOGAMI) and the Department. 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 #4]

(133) Before beginning construction, the certificate holder shall provide to the Department:

- (a) Information that identifies the final design locations of all Stateline 3 wind turbines to be built.
- (b) The maximum sound power level for the Stateline 3 substation transformers and the maximum sound power level and octave band data for the turbines selected for the Stateline 3 based on manufacturers' warranties or confirmed by other means acceptable to the Department.
- (c) The results of noise analysis of the facility, including the Stateline 3 components 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 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 #4]

(134) 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. In response to a complaint from the owner of a noise sensitive property regarding noise levels during operation of the facility, the Council may require the certificate holder to monitor and record the statistical noise levels to verify that the certificate holder is operating the facility in compliance with the noise control regulations. [Amendment #4; AMD5]

(135) During construction, the certificate holder shall not install any transmission line support structures within 800 feet of any active Swainson's hawk nest identified in 2008 or later. [Amendment #4]

(136) This condition applies to all phases of the Stateline Wind Project. When any third-party lien or security interest in the facility's wind turbines or turbine towers is created, the certificate holder shall notify such third party in writing that the wind turbines and towers are components an energy facility that is subject to the terms and conditions of a Site Certificate and subject to the rules of the Oregon Energy Facility Siting Council. The certificate holder shall provide to the Department a copy of each written notification

required under this condition and the name and contact information for each third party so notified. [Amendment #4]

## **X. CONDITIONS ADDED BY AMENDMENT #5 (Vansycle II); AMENDED BY AMENDMENT #6**

The conditions listed in this section are specific to the facility modifications approved in the ~~Fifth~~~~Sixth~~ Amended Site Certificate re-named **[AMD6]** and solely referred to as Vansycle II. These conditions and the conditions identified with **[AMD5]** above are the only conditions that apply to the facility modifications from prior to construction to prior to operation.

(137) The certificate holder shall construct the Vansycle II facility modifications, as approved in the ~~Fifth~~~~Sixth~~ Amended Site Certificate, substantially as described in Request for Amendment **56** of the site certificate, subject to the following restrictions and compliance with other site certificate conditions. Before beginning construction, the certificate holder shall provide to the Department equipment specifications and a description of the wind turbine dimensions to demonstrate compliance with this condition.

- a) Vansycle II wind turbine hub height must not exceed **262.5295** feet and the maximum blade tip height must not exceed **440499** feet.
- b) Vansycle II wind turbine rotor diameter must not exceed **354426** feet.
- c) Vansycle II wind turbine minimum blade tip clearance must not be lower than **8559** feet above ground.

[AMD5; **AMD6**]

(138) The certificate holder shall begin construction of the Vansycle II facility modifications, as approved in the ~~Fifth~~~~Sixth~~ Amended Site Certificate, within three years after the effective date of the amended site certificate [**June 12, 2022**]. The certificate holder shall notify the Department when construction of the facility modifications, as approved in Request for Amendment **6-5**, commences. Under OAR 345-015-0085(8), the amended site certificate is effective upon execution by the Council Chair and the certificate holder.

[Mandatory Condition OAR 345-025-0006(4); AMD5; **AMD6**]

(139) The certificate holder shall complete construction of the Vansycle II facility modifications, as approved in the ~~Fifth~~~~Sixth~~ Amended Site Certificate, within three years following the date of construction commencement [**June 12, 2025**]. The certificate holder shall promptly notify the Department of the date of completion of construction of the Vansycle II facility modifications, as approved in Request for Amendment **56**.

[Mandatory Condition OAR 345-025-0006(4); AMD5; **AMD6**]

(140) Prior to facility repower activities, the certificate holder shall provide the Department with the turbine foundation suitability analysis. If the analysis results identify necessary mitigation and remediation measures, or operational inspection timing recommendations, the certificate holder shall implement the identified measures and recommendation prior to beginning the repowering activities unless otherwise approved by the Department. ~~During operation of Vansycle II repowered wind turbines, as approved in the Fifth~~~~Sixth~~ Amended Site Certificate, the certificate holder shall:

(a) Perform inspections of the Vansycle II wind turbine foundations as part of its maintenance program in order to identify changes in the foundation conditions. Inspections will be performed in accordance with the procedures described in document titled: Tower Anchor Bolt Testing/Tensioning and Foundation Grout/Concrete Inspection, Document Number PGD 00 PM WX 9360100, Power Generation Division, Revision Number 1.5, Revision Date: 1/18/2018.

(b) In Year 1 of operation of Vanseyle II repowered wind turbines, inspections conducted in accordance with sub(a) will be completed for each of the 43 (up to 45) wind turbines. In Years 2 and 3, the certificate holder may reduce the number of inspections to 10 percent, or 5 wind turbines. If all inspections in Years 1, 2 and 3 pass the acceptance criteria, inspections of a 10 percent sample size, or 5 wind turbines, may occur every 5 years for the life of the facility.

(c) Results of foundation inspections will be provided to the Department and DOGAMI in accordance with inspection schedule identified in Document Number PGD 00 PM WX 9360100 and in the annual report. If signs of distress (noticeable degradation) are observed in the Vansycle II wind turbine foundations during the inspections and it is determined by the facility's Power Generation Division engineers and management that repairs are needed, the certificate holder will provide a remedial action plan to be reviewed by the Department and DOGAMI as soon as practicable.

(d) Any alteration of the inspection procedures and schedule described in Document Number PGD 00 PM WX 9360100 will require notification to and consultation with the Department and DOGAMI.

[AMD5; AMD6]

(141) During operation of the repowered Vansycle II wind turbines, as approved in the Fifth/Sixth Amended Site Certificate, the certificate holder shall:

(a) Perform wind turbine anchor bolt tension inspections in accordance with the technical manual titled: Tower Anchor Bolt Testing/Tensioning and Foundation Grout/Concrete Inspection, Document Number PGD 00 PM WX 9360100, Power Generation Division, Revision Number 1.5, Revision Date 1/18/2018.

(b) In Year 1 of operation of Vanseyle II repowered wind turbines, inspections conducted in accordance with sub(a) will be completed for each of the 43 (up to 45) wind turbines. In Years 2 and 3, the certificate holder may reduce the number of inspections to 10 percent, or 5 wind turbines. If all inspections in Years 1, 2 and 3 pass the acceptance criteria, inspections of a 10 percent sample size, or 5 wind turbines, may occur every 5 years for the life of the facility.

(c) Any alteration of the inspection schedule and tensioning procedures described in Document Number PGD 00 PM WX 9360100 will require notification to and consultation with the Department and DOGAMI.

[AMD5; AMD6]

(141) Prior to construction associated with repowering of Vansycle II wind turbines number 1 and 21, the certificate holder shall:

- Provide documentation demonstrating that the county road right of way adjacent to: 1) Gerking Flat Road and, 2) Butler Grade Road have been relocated or adjusted such that wind turbines 1 and 21 satisfy the setback requirements to county road rights of way pursuant to UCDC Section 152.616(HHH)(6)(a)(4). Wind turbines not meeting the setback requirements from county road rights-of-way are precluded from increasing the

maximum blade tip height from 4~~1640~~ to 4~~4099~~ feet through repower activities.

b. The documentation shall include written verification from Umatilla County that confirms the county road rights of way have been adjusted.  
[AMD5; AMD6]

**(142)** During construction of Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall:

- a. Ensure all construction personnel receive environmental awareness training from a qualified professional on cultural resources and the inadvertent discovery protocols of the Inadvertent Discovery Plan.
- b. Implement and adhere to Inadvertent Discovery Plan measures previously approved in Condition 75 in the event previously unidentified cultural resources are encountered, as referenced in (i) – (iv) of this condition.
  - i. The Inadvertent Discovery Plan shall establish that earth-disturbing activities be halted in the immediate vicinity of the find, in accordance with Oregon state law (ORS 97.745 and 358.920).
  - ii. Within 24-hours of the find, the certificate holder shall notify the Department, SHPO and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR).
  - iii. The certificate holder shall have a qualified archaeologist evaluate the discovery and recommend subsequent courses of action in consultation with the CTUIR and the SHPO.
  - iv. If human remains are discovered, the certificate holder shall halt all construction activities in the immediate area and shall notify the Department, SHPO, CTUIR, the County Medical Examiner and the State Police.

[RFA5; ~~AMD6~~]

**(143)** During construction of the Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall:

- a. Provide notice to adjacent landowners when repowering takes place to help minimize access disruptions;
- b. Provide proper road signs and warnings, including “Oversized Load,” “Truck Access,” or “Road Crossings;”
- c. Implement traffic diversion equipment, such as advance signs and pilot cars whenever possible when slow or oversized loads are being hauled;
- d. Encourage carpooling for the workforce to reduce traffic volume;
- e. Employ flag persons as necessary to direct traffic when large equipment is exiting or entering public roads to minimize risk of accidents; and
- f. Maintain at least one travel lane so that roadways will not be closed to traffic because of vehicles entering or exiting public roads.

[AMD5; ~~AMD6~~]

**(144)** During construction of the Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall ensure its third-party contractors reuse or recycle wind turbine blades, hubs and other removed wind turbine components to the extent practicable. The certificate holder shall report in its semi-annual report to the Department the quantities of removed wind turbine components recycled, reused, sold for scrap, and disposed of in a landfill. [AMD5; ~~AMD6~~]

**(145)** Prior to construction of Vansycle II wind turbine repower, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall submit a Notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) and the Oregon

Department of Aviation identifying the change in maximum blade tip height of the wind turbines to be repowered. Determination of No Hazards or other comments from FAA or Oregon Department of Aviation shall be provided to the Department.

[AMD5; AMD6]

**(146)** For the Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall:

- a. During design, select temporary staging areas based on a location with minimal noise impacts and proximity to noise sensitive receptors.
- b. Prior to construction, provide notice to landowners within 1-mile of the site boundary to inform of the construction start date, duration and description of activities and noise levels. The notice shall include the name and phone number of the certificate holder's representative which can be contacted to record construction-related noise complaints.

[AMD5; AMD6]

**(147)** Prior to construction of Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, the certificate holder shall provide to the Department:

- a. Information that identifies the as-built locations of all Vansycle II wind turbines.
- b. The maximum sound power level for the existing Vansycle II substation transformers and the maximum sound power level and octave band data for the repowered Vansycle II wind based on manufacturers' warranties or confirmed by other means acceptable to the Department.
- c. The results of noise analysis for the Vansycle II facility modifications, as approved in the ~~Fifth~~<sup>Sixth</sup> Amended Site Certificate, 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 (including the noise from repowered wind turbines and existing substation transformers) would meet the ambient 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<sub>10</sub> and L<sub>50</sub> 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.

[AMD5; AMD6]

## **XII. 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 345-027-0100.

## **XIII. 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. In the event of a conflict between the conditions contained in the amended site certificate and the Council's final order or the Final Orders on Amendment# 1, #2, #3, #4, or #5, the conditions contained in this amended site certificate shall control. [Amendment #I; Amendment #5; **Amendment #6**]

## **XIV. 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.

## **XIV. 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 representatives of the certificate holders. [Amendment #I]

**IN WITNESS WHEREOF**, this site certificate has been executed by the State of Oregon, acting by and through its Energy Facility Siting Council, by FPL Energy Vansycle LLC and by FPL Energy Stateline III, Inc.

### **ENERGY FACILITY SITING COUNCIL**

By:   
Barry Beyeler, Chair  
Oregon Energy Facility Siting Council

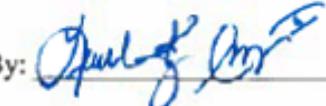
Date: MAY 17, 2019

### **FPL ENERGY VANSYCLE LLC**

By:   
Print: Terrell K. Crews II  
Vice President

Date: 4-12-19

### **FPL ENERGY STATELINE II, INC.**

By:   
Print: Terrell K. Crews II  
Vice President

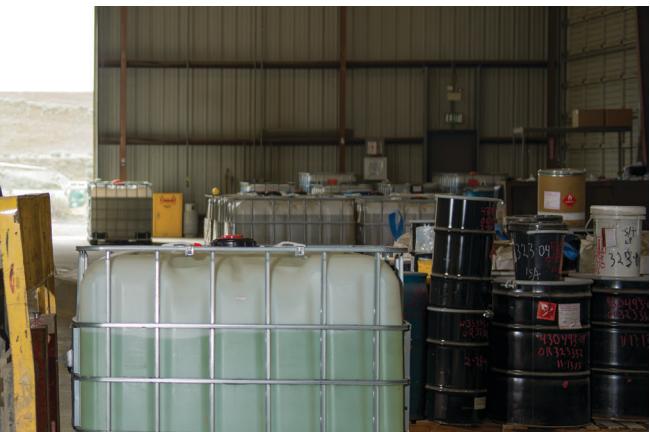
Date: 6-12-19

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 2. Arlington Landfill Information**



## Chemical Waste Management of the Northwest



Chemical Waste Management, Inc. (CWM) Arlington provides area communities, businesses and industries with professional, safe, and efficient industrial and hazardous waste services.

Located in Arlington, Oregon, this facility provides cost-effective services to customers in the states of Washington, Oregon, Montana, Idaho, Utah, Wyoming, Hawaii, Alaska and provinces of Western Canada. CWM Arlington also offers services nationally through Waste Management's (WM) extensive rail transportation network. In operation since 1976, this award-winning, environmentally safe hazardous waste facility boasts a stellar safety record and an unmatched technical service team with more than 20 years experience per representative. CWM Arlington adheres to strict regulations administered and overseen by the Environmental Protection Agency (EPA) Region X and the Oregon Department of Environmental Quality (ODEQ). This facility is positioned on a 1288-acre site (with 320 acres permitted for disposal operations). The site is buffered by over 11,000 acres of undeveloped property owned by Waste Management.

One of the most secure treatment and disposal facilities in the world, this remote operation is built on top of layers of basalt from various formations. The disposal cells meet very strict EPA and state guidelines, and are constructed of 60 mil High Density Polyethylene (HDPE). Additional security measures include a sophisticated leachate collection system, monitoring wells, and a state-of-the-art leak detection system.

#### **TREATMENT AND SERVICE OPTIONS**

- Asbestos disposal
- Drum collection, treatment and transshipment
- Fuels blending
- Hazardous waste transportation
- Macroencapsulation
- Microencapsulation
- Non-hazardous disposal
- RCRA landfill disposal
- Rail transportation
- Stabilization
- Solidification
- Storage and transfer for recycling and thermal treatment
- Thermal desorption



## Waste Management's Industrial and Hazardous Waste Services include:

### **Stabilization**

Hazardous waste requiring stabilization is treated using cement and/or cement byproducts, along with other reagents to reduce the hazardous metals leachability. Process recipes are developed for each waste stream and post treatment analysis (TCLP) is run to confirm that the recipe will treat the waste stream to levels below Land Disposal Restriction (LDR) standards.

### **Macroencapsulation**

Macroencapsulation entails placing hazardous debris into a WM-patented, macroencapsulation unit made from high-strength HDPE, specially designed as a hazardous waste debris management container to reduce or eliminate leachability of the waste. Trained personnel fill any remaining void space with an inert material and then seal the container. The secure container is then transferred to an appropriate cell within the footprint of the RCRA Subtitle C landfill for safe, permanent disposal. Macroencapsulation is appropriate for virtually any hazardous debris that fits in a 20-cubic-yard roll-off box. Common examples include concrete, piping, filters, rags, hoses, crushed containers and motors.

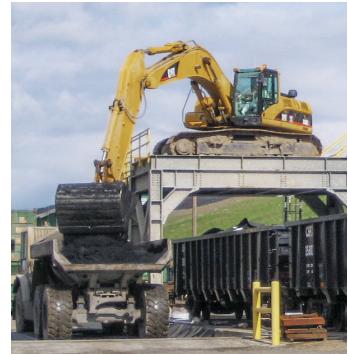
### **Microencapsulation**

Microencapsulation involves coating Inorganic Hazardous debris with a custom-tailored mixture of proprietary reagents that significantly reduce the leachability of hazardous constituents from the debris into the surrounding landfill environment. It is the preferred treatment method for debris that can be fully coated on all surfaces – both exterior and interior. Most hazardous debris qualifies for this treatment process. Common examples include refractory brick, rocks and concrete.

### **PCB Disposal**

Polychlorinated biphenyls (PCBs) are chemical compounds once widely used in a variety of manufactured products including paints, adhesives, machinery lubricants and heat transfer fluids. Our Arlington facility is able to provide the infrastructure, equipment and technical expertise to transport, treat and/or dispose of manufactured materials, soil, sediment and debris contaminated with PCBs in a manner that is both cost-effective and in compliance with all local, state and federal environmental regulations. CWM Arlington offers draining and flushing operations for PCB transformers.

- Transformers are decommissioned and landfilled or recycled
- Transformer fluid and flush material is transshipped to an approved incinerator for destruction
- PCB capacitors (depending on their size) are landfilled or transshipped to an approved incinerator for destruction
- PCB-contaminated equipment and debris is landfilled



## Drum Management Services

CWM Arlington offers safe, reliable and cost-effective drum management services for LTL (Less-Than-Truckload) and full truckload quantities. Whether special, industrial or hazardous waste, we will arrange for the proper treatment and/or disposal of drums and their contents while maintaining compliance with all local, state and federal regulations. CWM Arlington serves as a regional disposal and transfer facility managing liquid and solids drums. Once received, drums are then tested, consolidated, treated or transshipped for further treatment using other treatment technologies.

## Thermal Desorption-Organic Recovery Unit

The Organic Recovery Unit (ORU) uses intense levels of heat to drive hazardous organic material, water and solids from soil or other media without allowing the heat source to come in direct contact with the waste. The organic vapors and water that is liberated from the soil or other media are condensed in a multi-stage condenser system and the resulting liquids can be recycled as fuel or sent off-site for further treatment. No contaminants are released into the atmosphere by the ORU process, and many former chemical constituents of concern are recycled into their primary components that can be later recovered for their fuel value.

## Transportation Services

Whatever the quantity or the size of your shipment, our transportation specialists are on hand and ready to assist you with the secure transport of your RCRA, TSCA or non-hazardous waste shipments. CWM Arlington has extensive experience in moving material by truck, rail or barge. The Arlington location has one of the largest private rail yards in the Western United States, currently receiving 6 full trains per week. We have over 4,000 containers of various sizes dedicated to this location and over 100 rail gondolas. Our Transportation Specialists have experience in moving hazardous materials for remote locations such as North Slope and Dutch Harbor, Alaska, Johnson Atoll, Hawaii, as well as locations all across North America. CWM Arlington's standard of care includes providing pre-populated manifests and/or drum labels. We will work around your schedule to coordinate and implement an economical solution to your transportation challenges.

## Customer Service

Excellence in customer service is defined by our ability to find the best solution even if the solution is not immediately available. We're there to help you find the answers:

- Is it more cost effective to ship your material by drum, rail or bulk?
- How do the treatment codes apply to this waste type?
- Can you get your material approved and processed for shipment this week?
- Could Land Disposal Restrictions (LDR) apply to this waste stream?

If you have questions or challenges, we're here to help you find the solutions so that you can focus on your facility, your manufacturing activities or your remediation and land redevelopment projects. Our experienced Technical Service Representatives and Waste Approvals team are up to the challenge.



## Commonly Accepted Waste Types\*

- Asbestos
- Auto shredder residue
- CAMU-eligible waste as approved by the ODEQ
- Contaminated soils - hazardous (RCRA), non-hazardous and PCB (TSCA)
- CERCLA wastes
- Contaminated debris and equipment
- Debris for treatment or disposal (including empty tanks and vessels)
- Drummed wastes (liquid and solids)
- E&P wastes
- Industrial & special waste
- Lab packs
- Off-spec or out-of-date chemicals
- Palletized waste
- PCBs including capacitors and transformers
- Plating wastes
- Refinery wastes

### YEAR OPENED

1976

### PROJECTED LIFE REMAINING

100+ years

### FACILITY ACREAGE

1,288 acres

### PERMITTED FOOTPRINT

320 acres

### REMAINING PERMITTED CAPACITY

3.7 million yd<sup>3</sup> in landfill 14

### OWNERSHIP

Chemical Waste Management, Inc.

### PERMIT TYPE & PERMIT #

RCRA and TSCA EPA ID Permit  
ORD089452353

### REGULATORY AGENCIES

EPA Region X and the Oregon  
Department of Environmental Quality  
(ODEQ)

### # OF EMPLOYEES

55

\* Approvals are required for all waste types. Waste is accepted on a case-by-case basis.



#### **CONTACT CHEMICAL WASTE MANAGEMENT OF THE NORTHWEST**

##### **Technical Support**

Technical Service Center Portland  
800 963 4776  
TSCPortland@wm.com

##### **ADDRESS**

17629 Cedar Springs Lane  
Arlington, OR 97812

#### **COMMUNITY RELATIONS**

**Jackie Lang**  
503 493 7848  
jjlang@wm.com

#### **HOURS OF OPERATION**

8:00am – 4:30pm PST  
Monday – Friday  
Special hours available upon request

## **Questions about industrial and hazardous waste services?**

### **Contact a Waste Management representative:**



Call 800 963 4776



Visit [WMSolutions.com](http://WMSolutions.com)



Send an email to [TSCPortland@wm.com](mailto:TSCPortland@wm.com)

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 3. Land Use: Applicable Substantive Criteria**

# **Exhibit K**

## **Land Use**

---

**Stateline Wind Project – Vansycle II**  
**September 2021**

**Prepared for**  
**FPL Energy Stateline II, Inc.**

**Prepared by**



**Tetra Tech, Inc.**

This page intentionally left blank

## Table of Contents

1.0	Introduction .....	1
2.0	Land Use Analysis Area – OAR 345-021-0010 (1)(k)(A) .....	1
3.0	Local Land Use Approval – OAR 345-021-0010 (1)(k)(B).....	2
4.0	EFSC Determination on Land Use – OAR 345-021-0010 (1)(k)(C).....	2
4.1	Identification of Applicable Substantive Criteria – OAR 345-021-0010 (1)(k)(C)(i) .....	2
4.2	Applicable Substantive Criteria from OAR 345-021-0010 (1)(k)(C)(ii) .....	3
4.3	Umatilla County Comprehensive Plan Policies .....	15
4.4	Directly Applicable Rules, Statutes, and Goals – OAR 345-021-0010 (1)(k)(C)(iii).....	23
4.5	Statewide Planning Goal Exceptions .....	23
4.5.1	Identification of Exceptions – OAR 345-021-0010 (1)(k)(C)(iv) .....	23
4.5.2	Justification of Exceptions – OAR 345-021-0010 (1)(k)(C)(v).....	23
5.0	Federal Land Management Plans – OAR 345-021-0010 (1)(k)(D) .....	24

## List of Figures

Figure K-1. Analysis Area

Figure K-2. Rural Residence Setback Analysis

Figure K-3. County/Local Road Setback Analysis

## **Acronyms and Abbreviations**

EFSC	Energy Facility Siting Council
EFU	Exclusive Farm Use
Facility	Vansycle II Wind Project
MW	megawatts
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODOE	Oregon Department of Energy
RFA	Request for Amendment
SWP	Stateline Wind Project
UCDC	Umatilla County Development Code

## 1.0 Introduction

The Stateline Wind Project (SWP) consists of three wind farm developments (phases) in Umatilla County, all of which are operational wind farms: Stateline 1, Stateline 2, and Stateline 3. Per the Final Order on Amendment #4, SWP is divided into two separate parts (Stateline 1 & 2 and Stateline 3) with separate Site Boundaries. The Certificate Holder for Stateline 1 and 2 is FPL Energy Vansycle, LLC, and the Certificate Holder for Stateline 3 is FPL Energy Stateline II, Inc., but wholly-owned subsidiaries of NextEra Energy Resources, LLC. Stateline 3 was renamed to Vansycle II Wind Project (Facility) as a result of Request for Amendment (RFA) 5. The Facility is an existing and operational wind energy facility last amended in 2019. The information in Exhibit K is provided in support of a RFA 6, to allow the Facility to be repowered and add 50 megawatts (MW) of battery storage, and for battery installation and repowering-related impacts as described in the Written Request for Amendment. Please see Table 2 of RFA 6 for the repowering configuration options being proposed.

The Energy Facility Siting Council (EFSC) previously found that the Facility would comply with all applicable substantive criteria from Umatilla County except Umatilla County Development Code (UCDC) Section 152.616(HHH)(2)(J). UCDC Section 152.616(HHH)(2)(J) implemented Oregon Administrative Rules (OAR) 660-033-0130(17) and (22) governing wind facilities on Exclusive Farm Use (EFU) land and establishing 12-acre and 20-acre exception thresholds. In January 2009, OAR 660-033-0130(5) and (37) replaced OAR 660-033-0130(17) and (22) for siting a wind power generation facility on EFU land. The effect of these amendments was to eliminate the 12-acre and 20-acre exception thresholds for wind power generation facilities that are contained in OAR 660-033-0130(17) and (22) and to impose, instead, specific development standards on wind power generation facilities. At the time of RFA 4, OAR 660-033-0130(5) and (37) had been adopted, but UCDC had not been updated. Therefore, EFSC analyzed the Stateline Wind Project in consideration of both old and new laws and concluded under both old and new laws that the Facility would comply with the Land Use Standard if RFA 4 were approved. After approval of RFA 4, the Certificate Holder submitted the addressed applicable UCDC substantive criteria to the Umatilla County Planning Department. Umatilla County Planning Department subsequently issued Conditional Use Permit, #C-1149-09 and Temporary Batch Plant, Conditional Use Permit, #C-1150-59, and Stateline 3 Transmission Line, Land Use Decision, #LUD-094-09 for the Facility. Note that the UCDC has been amended as of 2020, however these changes do not impact the Council's prior findings under the Land Use Standard. The changes to these documents either do not apply to the location or zoning of the Facility site, or to the land use classification of the Facility or the Facility improvements.

## 2.0 Land Use Analysis Area – OAR 345-021-0010 (1)(k)(A)

*OAR 345-021-0010 (1)(k) Information about the proposed facility's compliance with the statewide planning goals adopted by the Land Conservation and Development Commission, providing*

*evidence to support a finding by the Council as required by OAR 345-022-0030. The applicant shall state whether the applicant elects to address the Council's land use standard by obtaining local land use approvals under ORS 469.504(1)(a) or by obtaining a Council determination under ORS 469.504(1)(b). An applicant may elect different processes for an energy facility and a related or supporting facility but may not otherwise combine the two processes. Once the applicant has made an election, the applicant may not amend the application to make a different election. In this subsection, "affected local government" means a local government that has land use jurisdiction over any part of the proposed site of the facility. In the application, the applicant shall:*

*OAR 345-021-0010 (1)(k)(A) Include a map showing the comprehensive plan designations and land use zones in the analysis area.*

Response: The required map is attached as Figure K-1. The Analysis Area is the area within the Facility Site Boundary plus the area within 0.5-miles from the Site Boundary.

### **3.0 Local Land Use Approval – OAR 345-021-0010 (1)(k)(B)**

*OAR 345-021-0010 (1)(k)(B) If the applicant elects to obtain local land use approvals:*

- (i) Identify the affected local government(s) from which land use approvals will be sought.*
- (ii) Describe the land use approvals required in order to satisfy the Council's land use standard.*
- (iii) Describe the status of the applicant's application for each land use approval.*
- (iv) Provide an estimate of time for issuance of local land use approvals.*

Response: The Certificate Holder has already elected to obtain an EFSC determination on land use.

### **4.0 EFSC Determination on Land Use – OAR 345-021-0010 (1)(k)(C)**

#### **4.1 Identification of Applicable Substantive Criteria – OAR 345-021-0010 (1)(k)(C)(i)**

*OAR 345-021-0010 (1)(k)(C) If the applicant elects to obtain a Council determination on land use:*

- (i) Identify the affected local government(s).*

Response: The Facility lies entirely in Umatilla County on privately owned land zoned EFU. No part of the proposed Facility lies on federal land.

## 4.2 Applicable Substantive Criteria from OAR 345-021-0010 (1)(k)(C)(ii)

*(ii) Identify the applicable substantive criteria from the affected local government's acknowledged comprehensive plan and land use regulations that are required by the statewide planning goals and that are in effect on the date the application is submitted and describe how the proposed facility complies with those criteria.*

Response: The Certificate Holder has reviewed the July 15, 2020 updated UCDC which includes specific land use criteria applicable to Wind Power Generation Facilities, UCDC section 152.616(HHH) as referenced in UCDC section 152.060(F), conditional uses permitted in the EFU zone. The substantive criteria contained in UCDC § 152.616(HHH) are set forth below in italics followed by the Certificate Holder's response. However, because the Facility has an existing conditional use permit, the permit amendment requirements are reviewed first and therefore the UCDC addressed are not sequential.

*UCDC § 152.061*

### *§ 152.061 STANDARDS FOR ALL CONDITIONAL USES.*

*The following limitations shall apply to all conditional uses in an EFU zone. Uses may be approved only where such uses:*

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

*(B) Will not significantly increase the cost of accepted farm or forest practices on lands devoted to farm or forest use.*

*(Ord. 2005-02, passed 1-5-05)*

Response: The lands devoted to farm use in Umatilla County are used primarily for cultivation of wheat and grazing of livestock, and related accessory uses. RFA 6 proposes alterations to an existing commercial wind facility. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). The impact of RFA 6 would not force a significant change in accepted farm practices or significantly increase the cost of farm practices, for the reasons discussed below:

- There will be de minimis permanent loss farm use as a result of RFA 6 for all updates will be within the existing and approved Site Boundary.
- The repowering and construction of the proposed battery storage will use existing Facility infrastructure, laydown areas, and access roads to the extent practicable, all located on previously disturbed construction area.
- New, permanent disturbances will occur within the Facility's Site Boundary in the case of the construction of battery storage and if repowering configuration Options A or B are chosen (see RFA 6 for the options being proposed). However, the new disturbances

are not anticipated to affect farm use for they will occur within the existing Site Boundary and will largely be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments).

- RFA 6 would not affect farm operations either the application of pesticides or fertilizers using ground-based methods. RFA 6 would not significantly affect the ability to conduct aerial spraying because the increase in the height of the turbines does not affect how the aerial sprayers operate and there would be no new vertical obstacles to spraying.
- The Certificate Holder will implement a weed control plan that will reduce the risk of weed infestation in cultivated land and the associated cost to the farmer for weed control.
- The Certificate Holder has recorded a covenant not to sue against its Facility leasehold interests with regard to generally accepted farming practices on adjacent farmland.
- RFA 6 would not cause changes in routes of access to fields or changes in the pattern of cultivation, seeding, fertilizing and harvesting near the turbines and access roads because all changes to the Facility layout are within previously approved turbine locations and/or disturbed construction areas within the Site Boundary.
- The Certificate Holder will continue to consult with area landowners during repowering of the Facility to determine further measures to reduce or avoid any adverse impacts to farm practices on surrounding lands and to avoid any increase in farming costs.
- Some farmland may be temporarily disturbed and unavailable for farming during battery installation and repowering from temporary access road widening, laydown areas, and crane paths. To avoid or reduce adverse impacts to soil quality, the Certificate Holder will implement dust control and erosion-control measures during construction and operation of the Facility (see Exhibit I of RFA 5). The Certificate Holder proposes to reduce impact to soils by using areas that are already disturbed. Additionally, the Certificate Holder will consult with landowners regarding the timing of activities and the location of access road widening, laydown areas, and crane paths. Temporary access road widening, laydown areas and crane paths will be limited to the least amount necessary to complete the repowering safely and efficiently. Restricting activities to previously disturbed land avoids expanding the area of impact to otherwise undisturbed soils and agricultural operations. Changes requested through consultation with landowners that meet all relevant Site Certificate conditions will be considered as they arise.
- Construction vehicles will use previously disturbed areas including existing roadways and tracks.
- Upon completion of construction, the Certificate Holder will restore temporarily disturbed areas to their pre-construction condition.

The measures above are intended to avoid or minimize the impacts of RFA 6 on farming operations, and to mitigate for necessary impacts. The Facility is designed and legally structured such that the cost burden of constructing and maintaining access roads and other facilities do not fall on the landowner and do not increase the costs of farming for affected landowners. Additionally, each participating landowner is compensated for the loss of agricultural lands, and the new income stream from lease payments help to stabilize often-fluctuating agricultural income, making farming more sustainable.

*UCDC § 152.616(HHH)*

*(10) (a) Permit Amendments.*

*The Wind Power Generation Facility requirements shall be facility specific, but can be amended as long as the Wind Power Generation Facility does not exceed the boundaries of the Umatilla County conditional use permit where the original Wind Power Generation Facility was constructed.*

Response: The Facility will not exceed the boundaries of the Umatilla County conditional use permit where the original Wind Power Generation Facility was constructed.

*(b) An amendment to the conditional use permit shall be subject to the standards and procedures found in §152.611. Additionally, any of the following would require an amendment to the conditional use permit:*

Response: UCDC §152.611(C) states that any alteration to a structure shall conform to the requirements for a conditional use or land use decision. Alter is defined as any change, addition or modification in construction or occupancy of a building or structure in UCDC § 152.003 Definitions. Therefore, replacing the nacelles and turbine blades would be an alteration to a structure. However, thresholds for permit amendments specific to wind facilities are included in UCDC § 152.616(HHH)(10)(b). The repowering activities as part of operations and maintenance would only meet one threshold (2; increase the number of towers), but only if repowering configuration Option B is chosen. In addition, the conditional use criteria for a wind farm on EFU zoned land is UCDC § 152.616(HHH) which generally applies to the procedure for taking action on the siting of a Wind Power Generation Facility rather than structural alterations to a sited and operational facility. Because the Facility is already sited and constructed rather than in the process of being sited, most of the applicable conditional use criteria do not apply. Therefore, only the applicable substantive criteria of the UCDC that apply to operational facilities are addressed herein in support of an amendment to the existing conditional use permit, if required for the Option that provides for an additional turbine.

*(1) Expansion of the established Wind Power Generation Facility boundaries;*

Response: As noted, above, there will be no expansion of the Facility Site Boundary as part of RFA 6.

*(2) Increase the number of towers;*

Response: RFA 6 proposes that up to two additional turbines could be constructed (if repower configuration Option B is chosen; see RFA 6 for repower option proposed); therefore an

amendment to the conditional use permit will be required in order to comply with the current Conditional Use Permit.

*(3) Increase generator output by more than 25 percent relative to the generation capacity authorized by the initial permit due to the re-powering or upgrading of power generation capacity; or*

Response: As a result of the repowering (maximum of 118.68 MW as proposed by repowering configuration Option B; see RFA 6), generator output will not increase by more than 25 percent.

*(4) Changes to project private roads or access points to be established at or inside the project boundaries.*

Response: There will be temporary widening on the existing access roads and for Option B only, new extents of access road, but no other changes to private roads or access points that are established at or inside the Site Boundary as part of RFA 6. The temporary road widening will be within the area previously disturbed for Facility construction as permitted in RFA 5.

*(c) In order to assure appropriate timely response by emergency service providers, Notification (by the Wind Power Generation Facility owner/operator) to the Umatilla County Planning Department of changes not requiring an amendment such as a change in the project owner/operator of record, a change in the emergency plan or change in the maintenance contact are required to be reported immediately. An amendment to a Site Certificate issued by EFSC will be governed by the rules for amendments established by ESC.*

Response: There will be no change to the Facility owner/operator of record, no change in the emergency plan, and no change in the maintenance contact as part of RFA 6. This Exhibit K is part of RFA 6 for the Facility, which is an amendment request that follows the amendment rules established by EFSC.

*§ 152.616(HHH)(1) County Permit Procedure.*

*...The County procedural requirements set forth in Section 152.616(HHH) (1)-(5), including the requirement for a hearing, will not apply to proposed Wind Power Generation facilities for which Energy Facility Siting Council is making the land use decision.*

Response: EFSC is making the land use decision. Therefore, the above-mentioned sections are not addressed.

*(6) Standards/Criteria of Approval.*

*The following requirements and restrictions apply to the siting of a Wind Power Generation Facility:*

*(a) Setbacks. The minimum setback shall be a distance of not less than the following:*

Response: As noted above, the UCDC was updated in 2016 which included updates to Wind Power Generation Facilities, UCDC section 152.616(HHH). The substantive criteria from the 2016 UCDC are addressed herein. Note that the 2020 updates to the UCDC do not impact the Council's prior findings under the Land Use Standard. The Facility was constructed in consideration of the above

mentioned UCDC Code sections from 2008. Setbacks in the 2008 UCDC were in § 152.063(A)-(C) which addressed minimum parcel frontage, front yard setbacks, and side and rear yard setbacks, which were a maximum of 60 feet. To the extent these requirements applied, the proposed improvements met the listed setback requirements from specified structures and boundary lines.

The Facility is an operational wind farm that was constructed to be consistent with the effective UCDC at the time of issuance of the Fourth Amended Site Certificate, as documented in the Umatilla County Conditional Use Permit, #C-1149-09 and demonstrated through annual reporting to the Oregon Department of Energy (ODOE) Umatilla County (required by Condition 8 and 127 of the Fifth Amended Site Certificate) (see Exhibit P - Attachment P-2, Attachment 2 of RFA 5). The Facility as proposed shall still adhere to the required setbacks. A majority of the repowering will utilize existing infrastructure and any new structures (battery storage and portions of repowering configuration Options A and B) will be contained within previously approved turbine locations and/or disturbed construction areas within the Site Boundary. The Facility as proposed will continue to meet the 2008 UCDC setback standards. Minimum setbacks for the current UCDC are addressed below.

- (1) From a turbine tower to a city urban growth boundary (UGB) shall be two miles. The measurement of the setback is from the centerline of a turbine tower to the edge of the UGB that was adopted by the city as of the date the application was deemed complete.*

Response: The nearest UGB is the City of Helix approximately 4 miles from the nearest Facility turbine tower.

- (2) From turbine tower to land zoned Unincorporated Community (UC) shall be 1 mile.*

Response: The nearest Unincorporated Community is Umapine, approximately 4 miles from the nearest Facility turbine tower.

- (3) From a turbine tower to a rural residence shall be 2 miles. For purposes of this section, "rural residence" is defined as a legal, existing single family dwelling meeting the standards of §152.058 (F)(1)-(4), or a rural residence not yet in existence but for which a zoning permit has been issued, on a unit of land not a part of the Wind Power Generation Facility, on the date a Wind Power Generation Facility application is submitted. For purposes of this section, the setback does not apply to residences located on properties within the Wind Power Generation Facility project application. The measurement of the setback is from the centerline of the turbine tower to the center point of the rural residence.*

Response: This setback only applies to new turbines proposed by RFA 6 (C. Johnson, personal communication, March 28, 2009). Option B proposes to add two new turbines; (see RFA 6), however, there are no rural residences within 2 miles of the new turbine towers (Figure K-2). All existing Facility turbines would meet Condition 126 (a) of the Site Certificate which stipulates all facility components must be at least 3,520 feet from the property line of properties zoned residential use or designated in the Umatilla County Comprehensive Plan as residential. Therefore, this criterion is met.

*From a turbine tower to the boundary right-of-way of County Roads, state and interstate highways, 110% of the overall tower-to-blade tip height. Note: The overall tower-to-blade tip height is the vertical distance measured from grade to the highest vertical point of the blade tip.*

Response: Based on current right-of-way information, there are two turbines that will not meet this standard after being repowered with longer blades that will increase the tower-to-blade tip height (see Figure K-3). Initially, the Certificate Holder sought a variance to the standard for these turbines. However, the Certificate Holder is no longer seeking a variance, but instead is working with Umatilla County outside of the request for amendment process to meet this public right of way setback. Additionally, based on a preliminary setback assessment, all other repowered turbines are anticipated to meet the setback. This finding will be confirmed prior to construction commencement.

*(4) From tower and project components, including transmission lines, underground conduits and access roads, to known archeological, historical or cultural sites shall be on a case by case basis, and for any known archeological, historical or cultural site of the Confederated Tribes of the Umatilla Indian Reservations the setback shall be no less than 164 feet (50 meters).*

Response: There are no Facility components within the 164 feet setback. The closest component is the transmission line which is approximately 192 feet from a known cultural site. There will be no modifications or changes to the transmission line as part of RFA 6.

*(5) New electrical transmission lines associated with the wind project shall not be constructed closer than 500 feet to an existing residence without prior written approval of the homeowner, said written approval to be recorded with county deed records. Exceptions to the 500 feet setback include transmission lines placed in a public right of way.*

Response: There will no new electrical line as part of RFA 6.

*(b) Reasonable efforts shall be made to blend the wind turbine/towers with the natural surrounding area in order to minimize impacts upon open space and the natural landscape.*

Response: EFSC previously found that compliance with Condition (37) of the Fifth Amended Site Certificate would satisfy the compliance with its Scenic and Aesthetic Values standard in Section IV.3(d) of Final Order 4. In addition, with respect to the Fifth Amended Site Certificate, EFSC previously found that compliance with Condition (37) would satisfy the requirements of UCDC § 152.616(HHH)(5)(B). Because the requested amendment involves a change to the existing turbines that will result in a change to the maximum height, the Certificate Holder seeks a modification of Condition (37) to read as follows:

*(37) To reduce the visual impact of the facility, the certificate holder shall:*

*(c) Construct each turbine to be approximately 2~~6395~~ feet tall at the turbine hub and with a total maximum height of approximately 4~~1699~~ feet with the nacelle and blades mounted*

Because the view from scenic resources in the surrounding area is already altered by the existing wind turbines and the increase in height is relatively minor, the visual and aesthetic impact would not be significant (see Exhibit R of RFA 5, and RFA 6 for additional detail). BMPs would be still be incorporated into the design of the Facility to ensure an attractive appearance and good integration into its landscape setting including:

- Implementation of active dust suppression measures during the construction period to minimize the creation of dust clouds, Condition (61)(p);
- Use of wind turbine towers, nacelles, and rotors that are locally uniform and conform to high standards of industrial design to present a trim, uncluttered, aesthetic appearance Condition (37)(e);
- Use of low-reflectivity, neutral gray, white, off-white, or earth-tone finishes for the towers, nacelles, and rotors to minimize contrast with the sky backdrop and to minimize the reflections that can call attention to structures in the landscape, Condition (37)(e);
- Use of neutral gray, white, off-white, or earth-tone finishes for the small cabinets containing pad-mounted equipment that might be located at the base of each turbine, to help the cabinets blend into the surrounding ground plane, Condition (37)(e);
- Restriction of exterior lighting on the turbines to the aviation warning lights required by the Federal Aviation Administration, which would be kept to the minimum required number and intensity to meet Federal Aviation Administration standards, Condition (37)(g);

Compliance with Condition 37, as modified, will meet the previous requirement of UCDC § 152.616(HHH)(5)(b) to "blend the wind facility's towers with the natural surroundings."

*(c) The development and operation of the Wind Power Generation Facility will include reasonable efforts to protect and preserve existing trees, vegetation, water resources, wildlife, wildlife habitat, fish, avian, resources, historical, cultural and archaeological site.*

Response: Numerous conditions in the Fifth Amended Site Certificate address erosion control, weed control, minimizing impacts to vegetation, protection of wildlife and habitat through preconstruction surveys, avoidance and mitigation, and monitoring the success of mitigation measures. These include Conditions (29), (30), (39), (52)-(56), (60)-(65), (68)-(70), (89)-(94), (111), (112), and (114)-(118). Accordingly, these conditions comply with the requirement of UCDC § 152.616(HHH)(6)(c) that "reasonable efforts shall be taken" to protect significant natural resources. No material changes to these conditions are proposed. In addition, these resources have been reviewed for potential impacts (see Exhibit J Wetlands, Exhibit P Fish and Wildlife Habitat, Exhibit Q Threatened and Endangered Plants and Animals and Exhibit S Cultural Resources of RFA 5, and RFA 6).

*(d) The turbine towers shall be designed and constructed to discourage bird nesting and wildlife attraction.*

Response: Pursuant to Condition (70)(c) of the Fifth Amended Site Certificate, the Certificate Holder is required to use monopole design for all turbine and permanent meteorological towers. Monopole design minimizes the potential for the turbine towers to provide nesting, perching, or shelter locations that may attract birds or other wildlife. Condition (70)(c) ensures compliance with UCDC § 152.616(HHH)(6)(d) and no change to this condition is proposed. Accordingly, this condition complies with the requirement of UCDC § 152.616(HHH)(5)(d) to discourage bird nesting and wildlife attraction.

*(e) Private access roads established and controlled by the Wind Power Facility shall be gated and signed to protect the Wind Power Generation Facility and property owners from illegal or unwarranted trespass, illegal dumping and hunting and for emergency response.*

Response: There will be no new access roads as part of the Facility. Required gates and signs already are installed for the operating Facility.

*(f) Where practicable the electrical cable collector system shall be installed underground, at a minimum depth of 3 feet; elsewhere the cable collector system shall be installed to prevent adverse impacts on agriculture operations.*

Response: There will be no changes to collector lines as part of the Facility.

*(g) Required permanent maintenance/operations buildings shall be located off site in one of Umatilla County's appropriately zoned areas, except that such a building may be constructed on site if:*

Response: There are no new operations and maintenance buildings or changes to the existing buildings as part of the Facility.

*(h) A Wind Power Generation Facility shall comply with the Specific Safety Standards for Wind Energy Facilities delineated in OAR 345 024 0010 (as adopted at time of application).*

Response: Compliance with OAR 345-024-0010 is addressed in the RFA 6 document, which satisfies the requirements of UCDC § 152.616(HHH)(5)(h).

*(i) A Covenant Not to Sue with regard to generally accepted farming practices shall be recorded with the County. Generally accepted farming practices shall be consistent with the definition of Farming Practices under ORS 30.930. The Wind Power Generation Facility owner/operator shall covenant not to sue owners, operators, contractors, employees, or invitees of property zoned for farm use for generally accepted farming practices.*

Response: A Covenant Not to Sue was recorded with the County and provided to ODOE as part of the 2010 Annual Report as Attachment 10 (see Exhibit P - Attachment P-2, Attachment 2 of RFA 5).

*(j) Roads.*

*(1) County Roads.*

*A Road Use Agreement with Umatilla County regarding the impacts and mitigation on county roads shall be required as a condition of approval.*

Response: Condition 81 of the Site Certificate requires verification that a road use agreement has been implemented and the conditions of the road use agreement met. The Certificate Holder will coordinate with Umatilla County Road Department on updating the previous Road Use Agreement or obtaining a new Road Use Agreement as applicable consistent with Condition 81 and the requirements of the UCDC.

*(2) Project Roads.*

*Layout and design of the project roads shall use best management practices in consultation with the Soil Water Conservation District. The project road design shall be reviewed and certified by a civil engineer. Prior to road construction the applicant shall contact the State Department of Environmental Quality and if necessary, obtain a storm water permit (National Pollution Discharge Elimination System).*

Response: There will be no new roads as part of the Facility, unless Option B is constructed. There will be temporary widening of roads to the maximum width of the previous width for initial Facility construction. A National Pollutant Discharge Elimination System (NPDES) 1200-C permit will be obtained for the Facility (see Exhibit I of RFA 5 and RFA 6).

*(k) Demonstrate compliance with the standards found in OAR 660-033-0130 (37).*

Response: The criteria of *OAR 660-033-0130 (37)* that would apply to an operational wind farm and to the repowering for operations and maintenance purposes are addressed below.

*(b) For arable lands, meaning lands that are cultivated or suitable for cultivation, including high value 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;*

Response: The Facility is an operational wind farm. New, permanent disturbances will occur within the Facility's Site Boundary in the case of the construction of battery storage and if repowering configuration Options A or B are chosen (see RFA 6 for the options being proposed). However, the new disturbances are not anticipated to affect farm use for they will occur within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). There will be minor temporary disturbance along existing roads and at turbine sites from large construction vehicles accessing the site. However, these impacts will be short term; construction will take a maximum of 4 months. After

repowering, any impacted areas will be restored in the same manner as the same revegetation practices as after the Facility was constructed.

*(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;*

Response: As noted above, a 1200-C permit will be obtained for the Facility. The Erosion and Sediment Control Plan that will be submitted as part of the 1200-C permit will be prepared by a licensed engineer (see Exhibit I of RFA 5 and RFA 6).

*(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*

Response: The purpose of RFA 6 is for repowering for maintenance and operation of an existing wind farm. New, permanent disturbances will occur within the Facility's Site Boundary in the case of the construction of battery storage and if repowering configuration Options A or B are chosen (see RFA 6 for the options being proposed). However, the new disturbances are not anticipated to affect farm use for they will occur within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Note that a majority of the repowering will utilize existing infrastructure (see Table 2 of RFA 6). There will also be limited temporary ground disturbance in areas that have previously been disturbed for Facility construction and restored. In general, the Facility will be in areas already devoted to wind energy generation use. Farming activities including soil conditions have already adapted to the operating Facility. As noted above, to reduce unnecessary soil compaction during repowering, work will be scheduled during the dry season as much as feasible. Heavy equipment and other vehicles will use larger tires with lower air pressure, as appropriate, to allow for better flotation and reduce pressure on the soil surface. Proper tire pressure will be checked and maintained as temperatures fluctuate throughout repowering activities. Traffic management will be implemented to minimize trips and to keep trucks and vehicles in the same tracks as much as possible to and from individual work sites to limit the area of compaction.

After repowering, temporarily impacted areas will be restored and revegetated in the same manner as after the Facility was constructed. This includes scarification to loosen compacted soils prior to revegetation, and potentially deeper decompaction in agricultural areas as determined in

consultation with area landowners. Exhibit I of RFA 5 provided information on soils in the Site Boundary.

*(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.*

Response: The Certificate Holder will comply with Condition 65 which includes developing measures to reduce the potential spread of noxious weed in consultation with the weed control board of Umatilla County and will report compliance in the 2010 Annual Report submitted after construction.

*(l) Submit a plan for dismantling of uncompleted construction and/or decommissioning and/or re-powering of the Wind Power Generation Facility as described in §152.616 (HHH) (7).*

Response: Prior to the start of decommissioning, the Certificate Holder will submit a final retirement plan for EFSC approval, which will satisfy Condition (98) by describing the activities required to retire the site. After EFSC approves the retirement plan, the Certificate Holder will obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration.

*(m) A surety bond shall be established to cover the cost of dismantling uncompleted construction and/or decommissioning of the Wind Power Generation Facility, and site rehabilitation pursuant to §152.616 (HHH) (7) and (8). The intent of this requirement is to guarantee performance (not just provide financial insurance) to protect the public interest and the county budget from unanticipated, unwarranted burden to decommission wind projects. For projects being sited by the State of Oregon's Energy Facility Siting Council (EFSC), the bond or letter of credit required by EFSC will be deemed to meet this requirement.*

Response: The Facility has already been constructed and is a legally operational Facility. On June 9, 2009, the Certificate Holder in consultation with ODOE obtained a Site Certificate bond in the amount of \$4,014,000.00. Renewal of the bond has been occurring annually as documented in the annual reports submitted to ODOE, (see Exhibit P – Attachment P-2 in Attachment 2 of RFA 5). The continually updated bond provides the necessary amount to restore the site to a useful, non-hazardous condition (see Exhibit W of RFA 5).

*(n) The actual latitude and longitude location or Stateplane NAD 83(91) (suitable for GPS mapping) coordinates of each turbine tower, connecting lines, O & M building, substation, project roads and transmission lines, shall be provided to Umatilla County on or before starting electrical production.*

Response: Latitude and longitude locations were provided in the 2010 Annual Report, as Attachment 1. Updated latitude and longitude information will be provided in an updated site plan to be submitted within 90 days of operation commencement (see above).

*(o) An Operating and Facility Maintenance Plan shall be submitted and subject to County review and approval.*

Response: A copy of the annual reports submitted to ODOE, referenced above (see Exhibit P – Attachment P-2 in Attachment 2 of RFA 5) on compliance with the site certificate conditions is submitted to Umatilla County annually.

*(p) A summary of as built changes to the original plan, if any, shall be provided by the Wind Power Generation Facility owner/operator 90 days of starting electrical production.*

Response: The Facility is already in electrical production and the battery installation and repowering effort would result in changes to the as-built drawings previously provided to Umatilla County. The Facility will be in compliance by submitting the updated plan within 90 days of the commencement of operations.

*(q) Submit a Socioeconomic Assessment of the Wind Power Generation Facility.*

Response: Exhibit U of RFA 5 provides a socioeconomic assessment for the Facility.

*(7) Dismantling/Decommissioning.*

*A plan for dismantling and/or decommissioning that provides for completion of dismantling or decommissioning of the Wind Power Generation Facility without significant delay and protects public health, safety and the environment in compliance with the restoration requirements of this section.*

Response: As noted above, prior to the start of decommissioning, the Certificate Holder will submit a final retirement plan for EFSC approval, which will satisfy Condition (98) by describing the activities required to retire the site. After EFSC approves the retirement plan, the Certificate Holder will obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration.

*(8) Decommissioning Fund.*

*The Wind Power Generation Facility owner/operator shall submit to Umatilla County a bond acceptable to the County, in the amount of the decommissioning fund naming Umatilla County beneficiary or payee.*

Response: The Facility has already been constructed and is a legally operational Facility. On June 9, 2009 the Certificate Holder in consultation with ODOE obtained a Site Certificate bond in the amount of \$4,014,000.00. Renewal of the bond has been occurring annually as documented in the annual reports submitted to ODOE (see Exhibit P – Attachment P-2 in Attachment 2 of RFA 5). The continually updated bond provides the necessary amount to restore the site to a useful, non-hazardous condition (see Exhibit W of RFA 5).

*(9) Annual Reporting.*

*Within 120 days after the end of each calendar year the Wind Power Generation Facility owner/operator shall provide Umatilla County a written and oral annual report including the following information:*

**Response:** The Certificate Holder will continue to submit annual reports to ODOE and Umatilla County (see Exhibit P - Attachment P-2, Attachment 2 of RFA 5) for the Facility as it has done for the past 11 years.

#### **4.3 Umatilla County Comprehensive Plan Policies**

*Citizen Involvement:*

- 1. Provide information to the public on planning issues and programs, and encourage continuing citizen input to planning efforts.*

**Response:** The RFA approval process incorporates opportunities for citizen input on the planning and permitting process, through many different forms including informal informational meetings, official notices to surrounding property owners and solicitation of comments, and the public hearings process if applicable. Accordingly, this UCCP policy regarding citizen involvement is satisfied.

- 5. Through appropriate media, encourage those County residents' participation during both city and County deliberation proceedings.*

**Response:** The RFA process provides ample opportunity for public review of application materials. The EFSC process is consistent with Statewide Land Use Planning Goal 1 regarding citizen involvement. Accordingly, the UCCP policies regarding citizen involvement are also met.

*Agriculture:*

- 1. Umatilla County will protect, with Exclusive Farm Use zoning pursuant to ORS 215, lands meeting the definition of farmland in this plan and designated as Agricultural on the Comprehensive Plan Map.*

**Response:** Umatilla County has adopted zoning and allocated lands identified as Agricultural on the Comprehensive Plan Map to the EFU zoning district pursuant to ORS 215. The Site Boundary is located entirely within the EFU zone. As discussed above, the Facility meets the applicable substantive criteria of the Umatilla County EFU zone.

- 8. The county shall require appropriate procedures/ standards/policies be met in the Comprehensive Plan and Development Ordinance when reviewing non-farm uses for compatibility with agriculture.*

**Response:** The Facility is located in the EFU zone, and this exhibit demonstrates consistency with applicable substantive criteria for the EFU zoning district in Umatilla County.

- 17. Continue to encourage timber management to occur on lower elevation seasonal grazing as permitted in the Exclusive Farm Use Zone.*

**Response:** There is no active timber management within the Site Boundary in Umatilla County.

*Open Space, Scenic & Historic Areas, and Natural Areas:*

1. (a) *The County shall maintain this resource [Open Space] by limiting development mainly to existing built up areas.*

Response: The Facility is an existing wind farm integrated into cultivated farmlands and with supporting infrastructure, much of which is buried underground. The Facility is located entirely on private land, none of which is designated as open space. There are existing wind farms integrated into the surrounding vicinity. RFA 6 does not seek to enlarge the existing Site Boundary and any physical component changes resulting from the battery storage installation and repowering will be conducted within previously approved turbine locations and/or disturbed construction areas within the Site Boundary (as authorized in the ASC and subsequent amendments). Therefore, the Facility will not significantly alter the rural, sparsely developed character of the Facility's lands. The impacts of the Facility on scenic, protected and recreational areas were discussed in further detail in Exhibits R, L and T of RFA 5 respectively, as well as RFA 6.

5. (a) *The County shall maintain rural agricultural lands, Development shall be of low density to assure retention of upland game habitat,*

Response: Although the Facility encompasses a fairly large geographic area, the density of developed areas due to the Facility and existing land uses will remain very low, and the vast majority of land within the Site Boundary will remain undeveloped. Additionally, most Facility impacts will occur on agricultural lands such that upland game habitat, and particularly the streams, wetlands and riparian areas on which game relies, will be minimally affected.

(b) *Land uses should maintain the vegetation along stream banks, fence rows, woodlots, etc. Research ways to reduce harassment and loss of upland game by free roaming dogs and cats.*

Response: Existing agricultural uses of the Facility lands will be able to continue with no new disruption after Facility construction is complete. The Facility is a widely spaced series of turbines with minimal supporting infrastructure, much of which is located underground; as such it does not interfere with game movement or habitat. Sensitive habitat and vegetated areas along stream banks, fence rows and woodlots will not be disturbed by the Facility. There are no characteristics of the Facility that would attract or exacerbate the problem of free roaming dogs and cats.

6. (a) *Developments or land uses that require drainage, channelization, filling or excessive removal of riparian vegetation in sensitive waterfowl areas should be identified.*

Response: The Facility does not require drainage, channelization, filling or excessive removal of riparian vegetation in sensitive waterfowl areas.

8. (a) *Setbacks shall be established to protect significant and other wetlands.*

Response: The Facility has been designed to avoid impacts to wetlands, and maintains sufficient setbacks from wetland edges to prevent indirect impacts to nearby wetlands.

9. (a) *The County shall encourage land use practices which protect and enhance significant wetlands.*

Response: The Facility has no impact on wetlands in Umatilla County, as further discussed in Exhibit J of RFA 5 and RFA 6.

*10. (c) Compatible land use shall maintain the riparian vegetation along streams in the floodplain. Stream bank vegetation shall be maintained along streams outside of the floodplain by utilizing appropriate setbacks.*

Response: The Facility is not located in areas of riparian vegetation or floodplains and has been designed to avoid impacts to riparian or other stream bank vegetation.

*(d) Development or land use that requires channelization, excessive removal of streamside vegetation, alteration of stream banks and filling into stream channels shall be restricted in order to maintain streams integrity.*

Response: The Facility has been designed to avoid all impacts to streams by using existing infrastructure when crossings are necessary.

*(e) New roads, bridges and access rights-of-way shall be designed to avoid channel capacity, and minimize removal of shoreline vegetation.*

Response: These policies are largely addressed above. Improved roads shall be sited in consultation with the affected landowner to minimize removal of shoreline vegetation, if any exists on the Facility site. No new roads, bridges or access rights-of-way are proposed that will adversely affect channel capacity.

*20. (a) Developments of potentially high visual impacts shall address and mitigate adverse visual effects in their permit application, as outlined in the Development Ordinance standards.*

Response: Visual impacts are mitigated as discussed in Exhibit R of RFA 5 and RFA 6.

*(b) It is the position of the County that the Comprehensive Plan designations and zoning already limit scenic and aesthetic conflicts by limiting land uses or by mitigating conflicts through ordinance criteria. However, to address any specific, potential conflicts, the County shall insure special consideration of the following when reviewing a proposed change of land use:*

- (1) Maintaining natural vegetation whenever possible.*
- (2) Landscaping areas where vegetation is removed and erosion might result.*
- (3) Screening unsightly land uses, preferably with natural vegetation or landscaping.*
- (4) Limiting rights-of-way widths and numbers of roads intersecting scenic roadways to the minimum needed to safely and adequately serve the uses to which they connect.*
- (5) Limiting signs in size and design so as not to distract from the attractiveness of the area.*
- (6) Siting Developments to be compatible with surrounding area developments and recognizing the natural characteristics or the location.*
- (7) Limiting excavation and filling only to those areas where alteration of the natural terrain is necessary and re-vegetating such areas as soon as possible.*

*(8) Protection vistas and other views which are important to be recognized because of their limited number and importance to the visual attractiveness of the area.*

Response: The Facility is an operational wind farm. Wind energy projects are a conditional use in the Umatilla County EFU zone. As called for by this UCCP policy, aesthetic and scenic conflicts are already largely mitigated through the substantive criteria applicable to the Facility. Additionally, there are no identified or designated scenic views or resources in the vicinity of the Facility, indicating that there are no specific scenic or aesthetic conflicts to be addressed (see Exhibit R of RFA 5 and RFA 6). Vegetation removal would be largely limited to agricultural crops, with very little impacts to native vegetation and no impacts to trees. Disturbed area will be revegetated as soon as practicable following construction to restore the visual quality of the land and to prevent erosion. Facility access roads will be narrowed following construction to a minimum width needed for typical maintenance vehicles. No Facility access roads intersect with designated scenic roadways.

*22. The County shall cooperate with state agencies and other historical organizations to preserve historic buildings and sites, cultural areas, and archeological sites and artifacts.*

Response: The Facility would not impact historic buildings, as there are none located within the Site Boundary. All other known historic, cultural and archaeological resources were previously avoided through modifications to the Facility layout. Cultural sites will be avoided and in the event that previously undiscovered sites or artifacts are found during construction, the Certificate Holder will coordinate with SHPO regarding an appropriate course of action to conserve the resource. Avoidance of impacts to cultural or archaeological resources is discussed in Exhibit S of RFA 5 and RFA 6.

*23. (a) Umatilla County shall encourage and cooperate in developing a detailed county-wide historic site inventory.*

Response: Any historic site information developed in the course of Facility development shall be provided for inclusion in the Umatilla County historic site inventory.

*24. (a) Umatilla County shall protect significant historical and cultural sites from land use activities which diminish their value as historical resources.*

Response: Avoidance of impacts to cultural or historical resources is discussed in Exhibit S of RFA 5 and RFA 6. All identified sites eligible or potentially eligible for regulatory protection are avoided as required by applicable standards.

*26. The County shall cooperate with the Tribe, Oregon State Historic Preservation Office, and others involved in concern identifying and protecting Indian cultural areas and archeological sites.*

Response: The Certificate Holder has cooperated and consulted with the CTUIR and Oregon SHPO regarding cultural and archaeological resources prior to Facility construction. During construction of the Facility, there was a CTUIR construction monitor. All identified Indian cultural and archaeological sites eligible or potentially eligible for regulatory protection are avoided as required by applicable standards.

*37. The County shall ensure compatible interim uses provided through Development Ordinance standards, and where applicable consider agriculturally designated land as open space for appropriate and eventual resource or energy facilities use.*

Response: The Facility is an energy facility on agricultural open space, as encouraged by this policy.

*38. (a) The County shall encourage mapping of future agencies [sic] sites, ensure their protection from conflicting adjacent land uses, and required reclamation plans.*

Response: The Facility would not prevent the future development of aggregate or mineral extraction sites, and would not represent a conflicting land use that would adversely affect or be adversely affected by mining activities in the vicinity.

*(b) Aggregate and mineral exploration, extraction, and reclamation shall be conducted in conformance with the regulations of the Department of Geology and Mineral Industries.*

Response: The Facility does not involve aggregate or mineral exploration, extraction or reclamation, and would not impact any existing aggregate or mineral extraction site except to the extent that the Facility may purchase aggregate from an existing, permitted mine.

*(c) The County Development Ordinance shall include conditional use standards and other provisions to limit or mitigate conflicting uses between aggregate sites and surrounding land uses.*

Response: The Facility does not include the development of any aggregate or other mining sites. The Facility complies with all applicable substantive criteria related to protection of aggregate resources.

*39. (a) The County shall strictly enforce state and county development standards pertaining to gravel extraction/processing uses through appropriate agencies; whether new operations or expansions of existing sites.*

Response: The Facility does not propose any new mining sites, nor the expansion of existing mining sites.

*42. (a) Encourage development of alternative sources of energy.*

Response: This is an alternative energy project in furtherance of this policy.

*Air, Land, Water Quality:*

*1. Discharges from existing and future developments shall not exceed applicable environmental standards.*

Response: The Certificate Holder will obtain and comply with an NPDES 1200-C permit for storm water discharge, and shall follow best management practices to minimize discharges and emissions during construction (see Exhibit I of RFA 5 and RFA 6).

*7. Consider cumulative noise impacts and compatibility of future developments, including the adoption of appropriate mitigating requirements of plan updates.*

**Response:** Noise impacts and mitigation are discussed in Exhibit X of RFA 5, which demonstrates that the Facility is designed and can be operated to comply with state noise regulations. An updated noise analysis confirmed that the Facility as proposed will comply with the applicable noise control regulations (see RFA 6).

*8. Recognize that protection of existing wells has priority over development proposals requiring additional subsurface sewage disposal.*

**Response:** The only subsurface sewage disposal is at the operations and maintenance building, which is located sufficiently far from any existing wells to avoid any potential conflict.

*Natural Hazards:*

*1. The County will endeavor, through appropriate regulations and cooperation with applicable governmental agencies, to protect life and property from natural hazards and disasters found to exist in Umatilla County.*

**Response:** The Facility is in an area largely free of natural hazards. The Facility would not represent a hazard to public health or safety even in the event of a catastrophic failure. The battery storage and turbines including as modified are designed and built to rigorous engineering standards as required building codes so that they can withstand earthquakes.

*4. Potentially hazardous major developments (e.g. power plants) must address earthquake hazard possibilities.*

**Response:** There are no known hazardous liquefaction, subsidence or landslide risk areas within the Facility site in Umatilla County. All foundations are built to applicable engineering standards for earthquake safety.

*Recreation Needs:*

*1. Encourage and work with local, state, federal agencies and private enterprise to provide recreational areas and opportunities to citizens and visitors to the County.*

**Response:** The Facility does not impact any existing recreational resources.

*Economy:*

*1. Encourage diversification within existing and potential resource-based industries.*

**Response:** The Facility represents a diversification of existing resource-based industries by combining agriculture use with energy use.

*4. Participate in selected economic development programs and projects applicable to the County desired growth.*

**Response:** The Facility monetizes the wind resource of Umatilla County without injury to other wind projects or natural resource uses. The Facility will generate economic growth and jobs within Umatilla County.

*8. Evaluate economic development proposals upon the following:*

*Will the proposal:*

- a. increase or decrease available supplies?*
- b. improve or degrade qualities?*
- c. balance withdrawal with recharge rates?*
- d. be a beneficial use?*
- e. have sufficient quantities available to meet needs of the proposed project and other existing and reassembly anticipated needs?*
- f. reduce other use opportunities and if so, will the loss be compensated by other equal opportunities?*

Response: All of these policies are advanced by the Facility. The Facility monetizes the wind resource of Umatilla County without injury to other wind projects or natural resource uses. The Facility will generate economic growth and construction jobs within Umatilla County. The Facility has no effect on natural resource supplies or quality, and will be a net beneficial use by reducing the need for carbon-intensive energy sources. The primary energy input – wind – is free and limitless.

*Public Facilities and Services:*

*1. The county will control land development in a timely, orderly, and efficient manner by requiring that public facilities and services be consistent with established levels of rural needs consistent with the level of service requirements listed on pages J-27 and J-28 of the Technical Report. Those needs are identified as follows:*

- a. Fire protection shall be provided consistent with Policies 8,9,10.*

Response: Policies 8, 9 and 10 call for the formation or expansion of rural fire districts in areas designated for non-resource use; the provision of adequate firefighting water supplies for significant new rural developments in coordination with the appropriate fire district; and assistance by the County in locating satellite fire stations, respectively. As described in Exhibit U of RFA 5 and RFA 6, the Facility is located in an area served by fire protection agencies. During construction, and particularly during activities that present a potential fire hazard, the Certificate Holder will maintain water trucks on site for rapid response in the event of a fire.

- b. Police protection shall be provided consistent with Policy 7.*

Response: There would be no changes to the Facility that would require different police protection than is currently provided.

- c. Surface. Water Drainage-Roadside drainage shall be maintained and plans for drainage shall be required in multiple use areas.*

Response: There will be no new roads as part of the Facility. The specific requirements for temporary roadside drainage during construction will be determined through the NPDES 1200-C permit and the associated Erosion and Sedimentation Control Plan.

*d. Roads shall be maintained or improved to standards adopted by the County Road Department which are consistent with nationally accepted standards that correlate traffic to desired road conditions.*

Response: Exhibit U of RFA 5 demonstrated the adequacy of public services to serve the Facility, and that the impact of the Facility on those services will not be significant (as supported in RFA 6).

*2. Require that domestic water and sewage disposal systems for rural areas be provided and maintained at levels appropriate for rural use only. Rural services are not to be developed to support urban uses.*

Response: Water supply and sewage disposal plans for the Facility are consistent with the rural nature of the site and will not be modified as part of the Facility.

*9. Require adequate water supplies for firefighting as part of significant new developments in rural areas in coordination with the appropriate rural fire district.*

Response: Wind projects do not pose a significant fire risk. This policy is directed more at occupied development such as residential and commercial buildings. Nonetheless, the Certificate Holder has confirmed the adequacy of fire protection services in Umatilla County as discussed in Exhibit U of RFA 5 and RFA 6. Additionally, although the addition of battery storage adds an additional aspect to the analysis for fire protection, the existing Site Certificate conditions are sufficient to meet the Public Services standard and Public Health and Safety and Public Services Standards.

*Transportation:*

*18. The County will review right-of-way acquisitions and proposals for transmission lines and pipelines so as to minimize adverse impacts on the community.*

Response: No right-of-way acquisitions are needed for the Facility.

*20. Request larger industrial and commercial development proposals, consider sponsoring carpooling programs.*

Response: The Facility will not generate enough traffic regularly to justify carpooling arrangements.

*Energy Conservation:*

*1. Encourage rehabilitation /weatherization of older structures and the utilization of locally feasibly renewable energy resources through use of tax and permit incentives.*

**Response:** The Facility repowering will reuses primarily existing structures regardless of the repower configuration option chosen (see RFA 6). The Facility is a wind energy facility that utilizes locally feasible renewable energy resources, in furtherance of this policy.

#### **4.4 Directly Applicable Rules, Statutes, and Goals – OAR 345-021-0010**

##### **(1)(k)(C)(iii)**

*(iii) Identify all Land Conservation and Development Commission administrative rules, statewide planning goals and land use statutes directly applicable to the facility under ORS 197.646(3) and describe how the proposed facility complies with those rules, goals and statutes.*

For purposes of RFA 6 (which is located entirely within EFU-zoned land), the applicable statewide planning goal is Goal 3, which is the State's Agricultural Lands goal. Goal 3 is implemented through EFU zoning in local development codes. Local development codes in turn incorporate the pertinent OARs. Pursuant to OAR 660-033-0120, wind power generation facilities must comply with the standards set forth in OAR 660-033-0130(5) and (37). The standards of OAR 660-033-0130(5) are discussed above in response to UCDO 152.061. The standards of OAR 660-033-0130(37) are discussed above in response to UCDO 152.616(HHH)(6)(k). All standards are met.

#### **4.5 Statewide Planning Goal Exceptions**

##### **4.5.1 Identification of Exceptions – OAR 345-021-0010 (1)(k)(C)(iv)**

*(iv) If the proposed facility might not comply with all applicable substantive criteria, identify the applicable statewide planning goals and describe how the proposed facility complies with those goals.*

The Facility complies with all substantive criteria.

##### **4.5.2 Justification of Exceptions – OAR 345-021-0010 (1)(k)(C)(v)**

*(v) If the proposed facility might not comply with all applicable substantive criteria or applicable statewide planning goals, describe why an exception to any applicable statewide planning goal is justified, providing evidence to support all findings by the Council required under ORS 469.504(2).*

As noted above, the Facility complies with all applicable substantive criteria and applicable statewide planning goals, and therefore an exception is not necessary.

## **5.0 Federal Land Management Plans – OAR 345-021-0010**

### **(1)(k)(D)**

No portion of the Facility will be located on federal land.

# **Figures**

**EXHIBIT K: COMPLIANCE WITH STATEWIDE PLANNING GOALS**

---

This page intentionally left blank

Stateline Wind Project  
Request for Amendment 6  
Vansycle II

Figure K-1  
Zoning Map

UMATILLA, OR

- 10 mile buffer
- Analysis Area - 0.5 mile
- Interstates
- Highways
- Major Roads
- Project Boundary



0 1 2 4 Miles

1:253,440

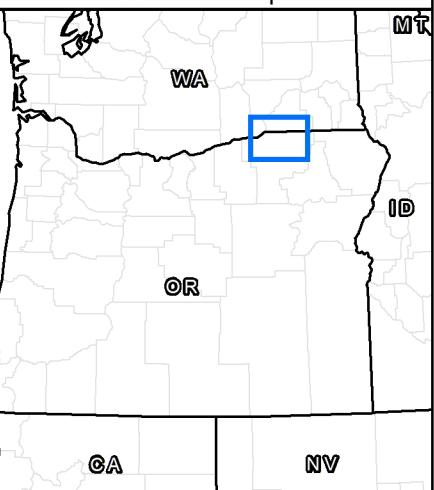
NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l

TETRA TECH

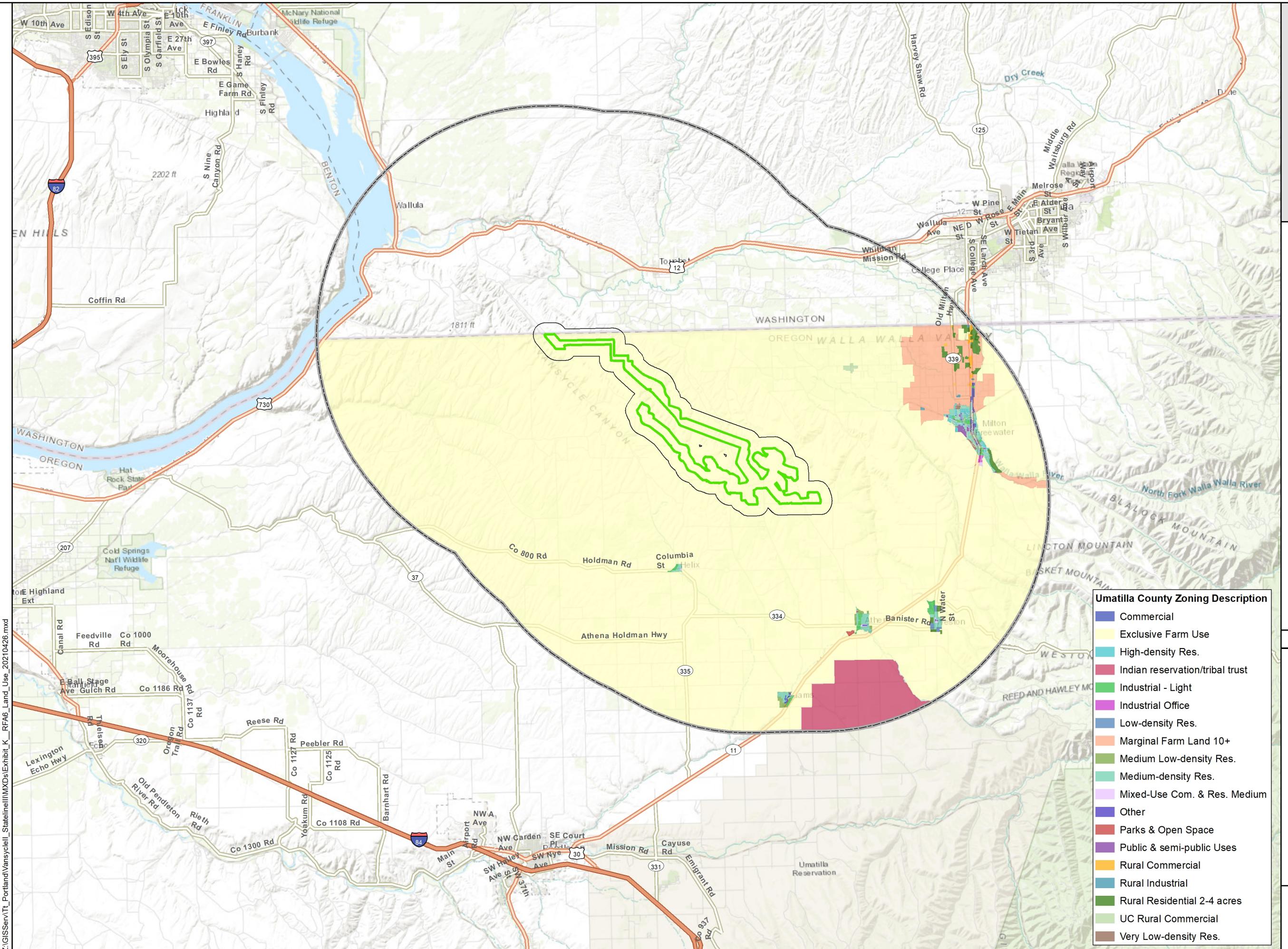
Umatilla County Zoning Description

- Commercial
- Exclusive Farm Use
- High-density Res.
- Indian reservation/tribal trust
- Industrial - Light
- Industrial Office
- Low-density Res.
- Marginal Farm Land 10+
- Medium Low-density Res.
- Medium-density Res.
- Mixed-Use Com. & Res. Medium
- Other
- Parks & Open Space
- Public & semi-public Uses
- Rural Commercial
- Rural Industrial
- Rural Residential 2-4 acres
- UC Rural Commercial
- Very Low-density Res.

Reference Map



Data Sources:  
ESRI Streetmap



## Vansycle II Repower

### Setback Analysis (Base Case)

UMATILLA COUNTY, OR

- Turbines  
(Converted to Siemens 2.66-129)
- Turbine Buffer  
(Base Case - 110% of Proposed Height)
- Butler Grade
- Cultural Sites 164-feet Buffer
- Urban Growth Boundaries 2-mile Buffer
- Potential Residence
- Residences 2-mile Buffer
- County and Local Roads
- Lease Boundary
- Project Boundary

 TETRA TECH

### Reference Map



## Vansycle II Repower

### Setback Analysis (Option A)

UMATILLA COUNTY, OR

Turbines 11, 12, 13  
● (Converted to GE  
2.3-116)

Turbines (Converted  
● to Siemens 2.66-  
129)

Turbine Buffer  
● (Option A - 110% of  
Proposed Height)

Butler Grade

Cultural Sites 164-  
feet Buffer

Urban Growth  
● Boundaries 2-mile  
Buffer

Potential Residence  
● Residences 2-mile  
Buffer

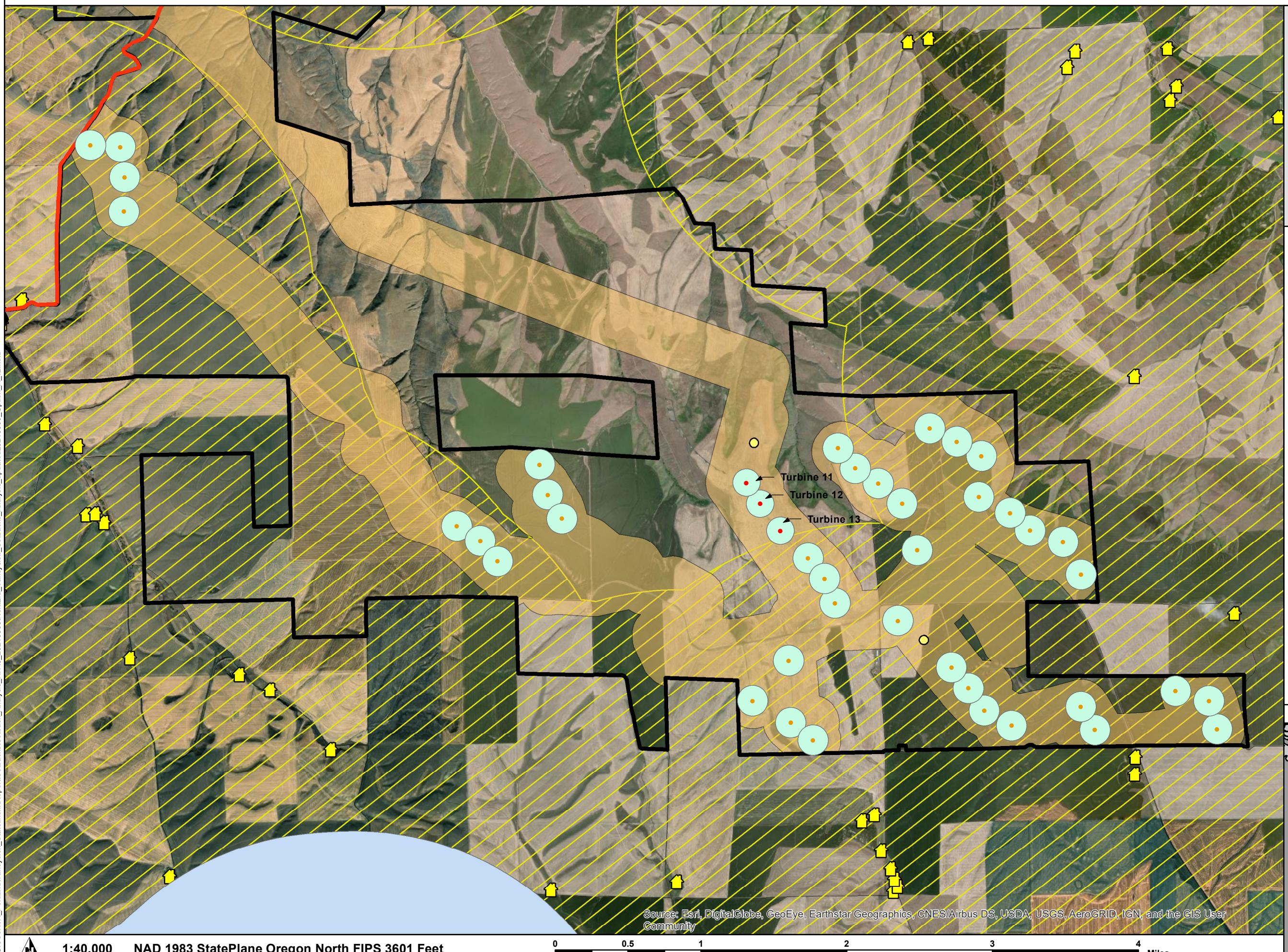
County and Local  
Roads

Lease Boundary  
● Project Boundary

 TETRA TECH

### Reference Map

Canada



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User  
Community



1:40,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0

0.5

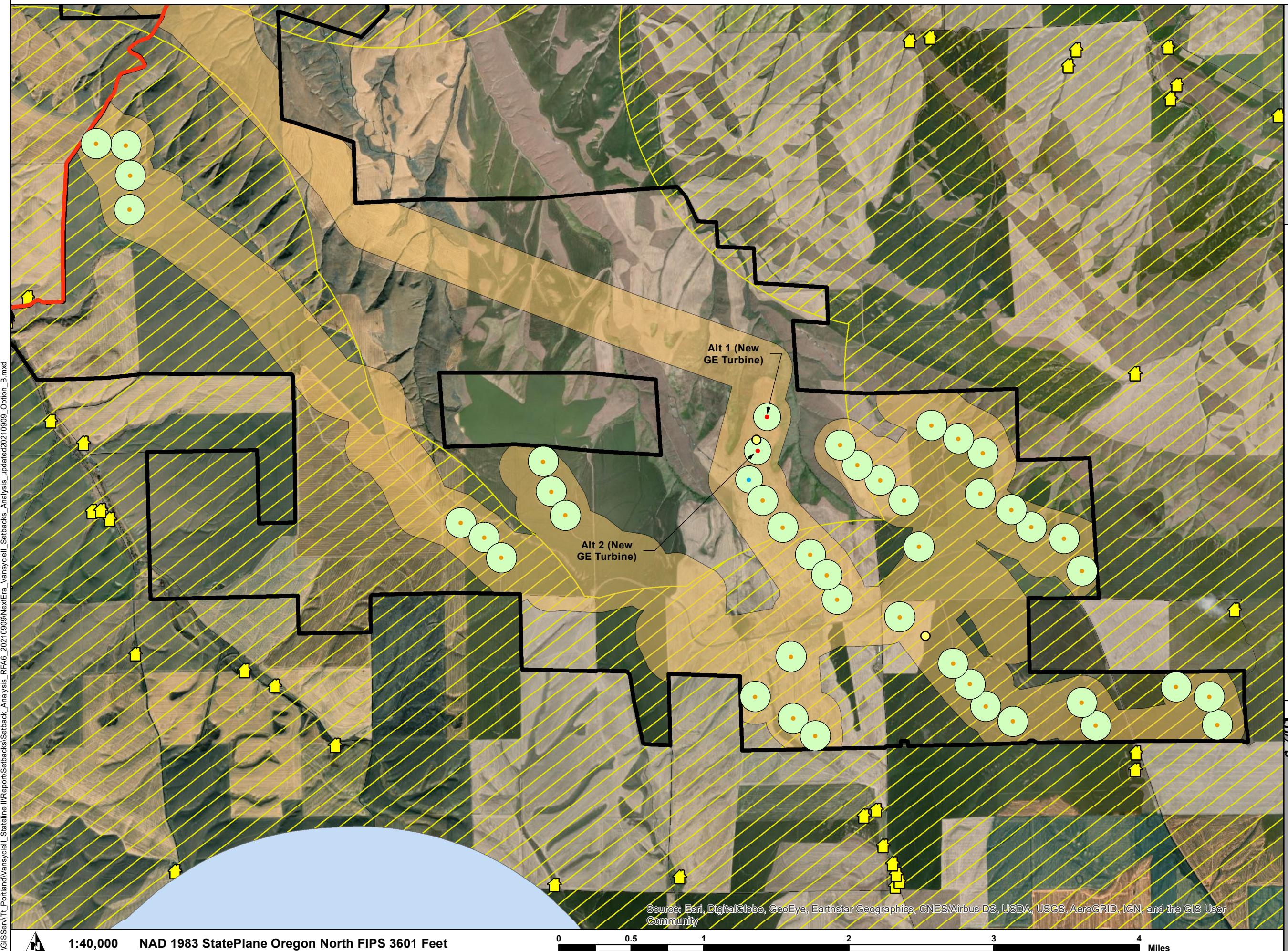
1

2

3

4

Miles



## Vansycle II Repower

## Setback Analysis (Option B)

## UMATILLA COUNTY, OR

- New Turbines (GE 2.3-116)
- Turbine 11  
(Converted to GE 2.3-116)
- Turbines (Converted to Siemens 2.66-129)
- Turbine Buffer  
(Option B - 110% of Proposed Height)
- Butler Grade
- Cultural Sites 164-feet Buffer
- Urban Growth Boundaries 2-mile Buffer
- Potential Residence
- Residences 2-mile Buffer
- County and Local Roads
- Lease Boundary
- Project Boundary

## Reference Map

*Canada*



Stateline Wind Project  
Request for Amendment 6  
Vansycle II

Figure K-3. County/  
Local Road Setback  
Analysis

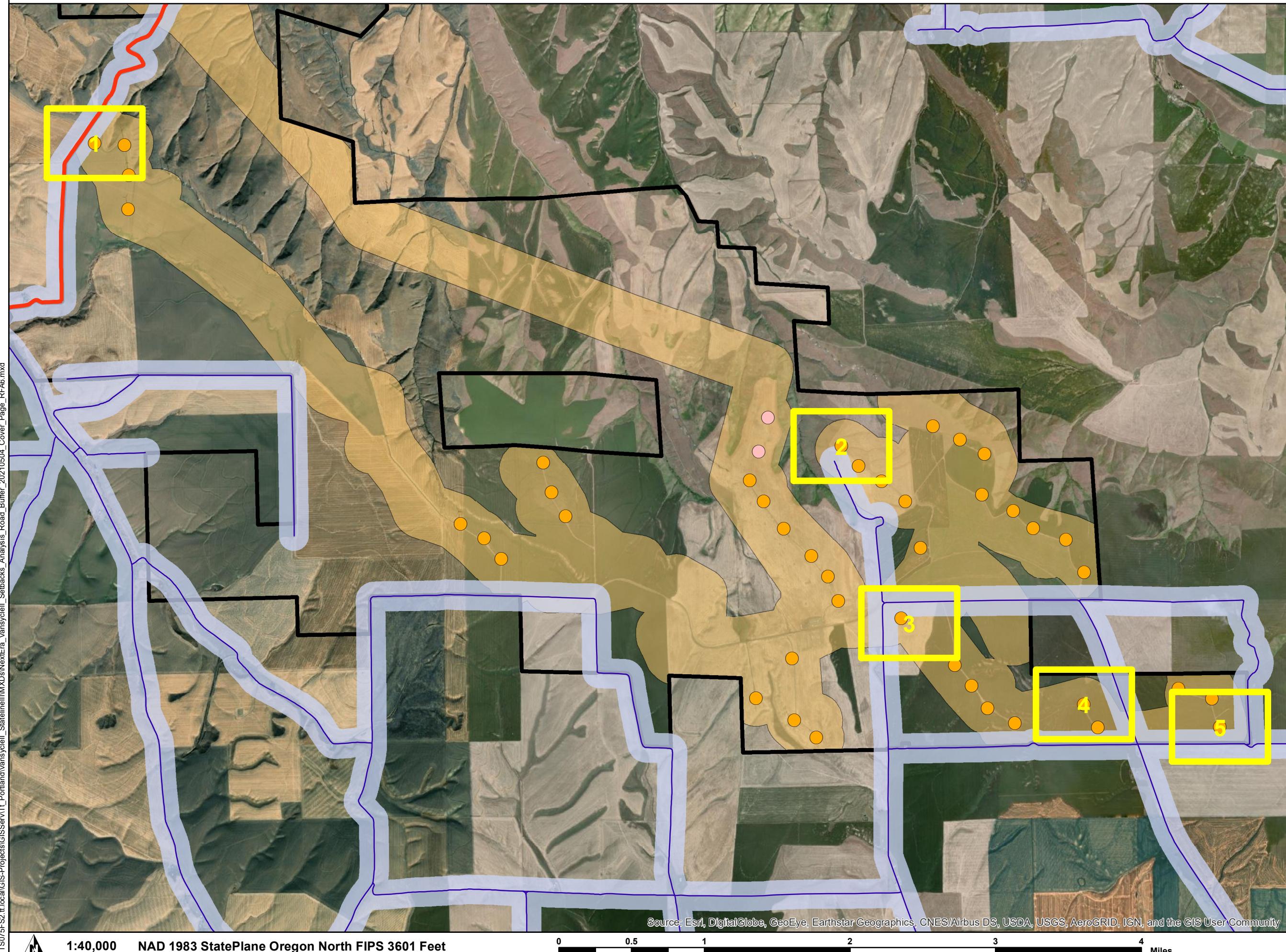
UMATILLA, OR

- Existing Turbines
- New Turbines
- Butler Grade
- County/Local Roads
- County/Local Roads 163.9-meter Buffer
- Lease Boundary
- Project Boundary
- Page Number

TETRA TECH

Reference Map

Canada



Stateline Wind Project  
Request for Amendment 6

Vansycle II

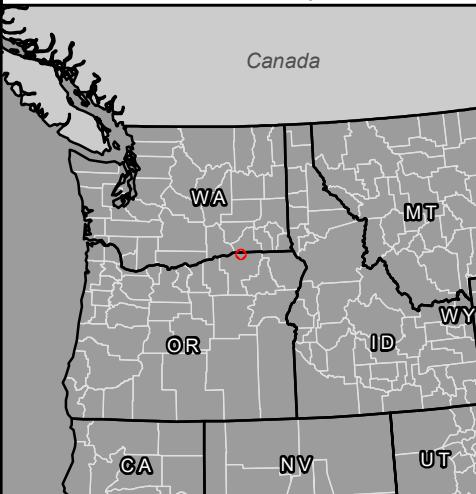
Figure K-3. County/  
Local Road Setback  
Analysis  
Page 1 of 5

UMATILLA, OR

- Existing Turbines
- County/Local Roads
- Butler Grade
- County/Local Roads  
163.9-meter Buffer
- Project Boundary

TETRA TECH

Reference Map



1:2,787 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.05 0.1 0.2 Miles

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

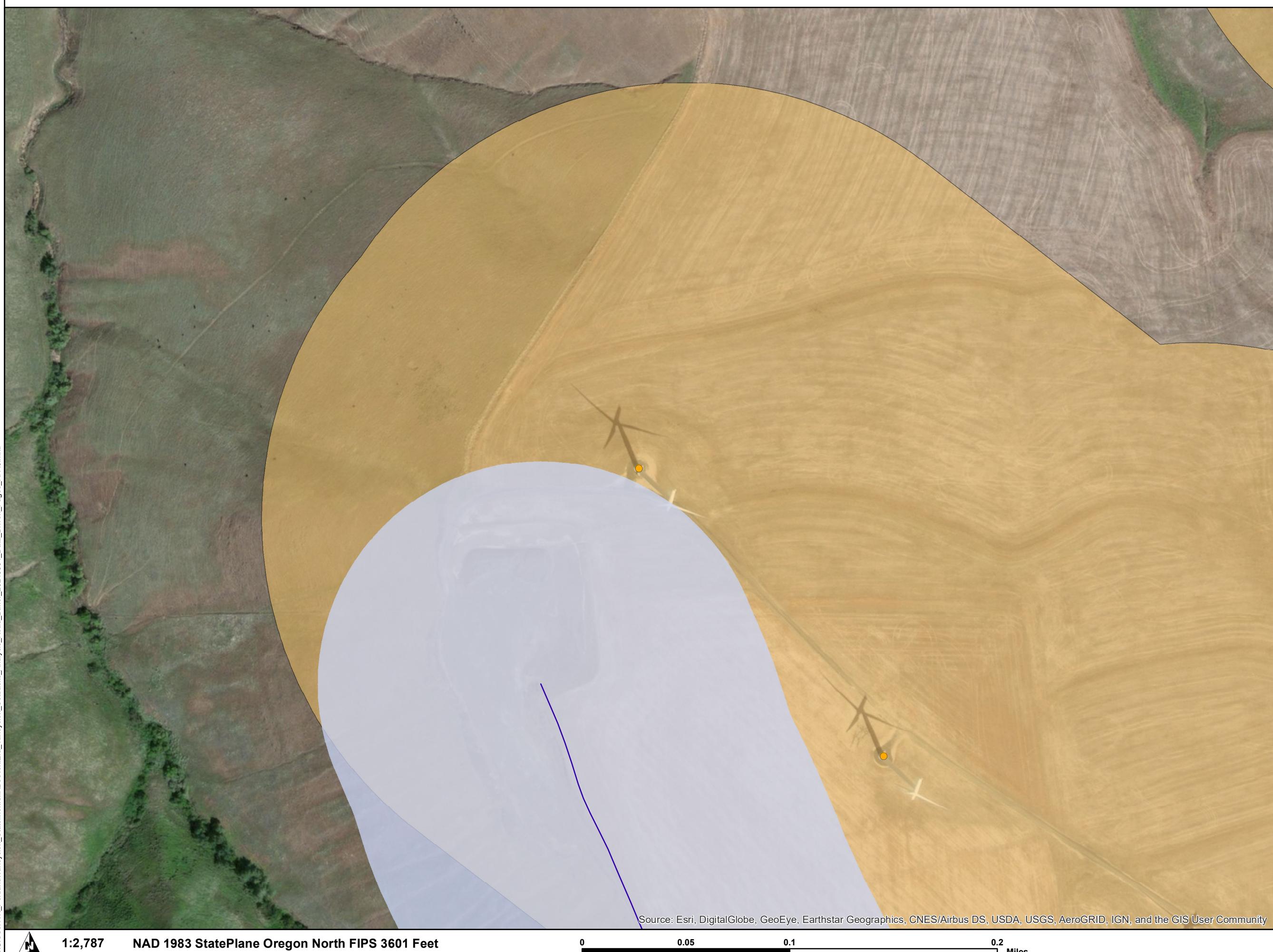
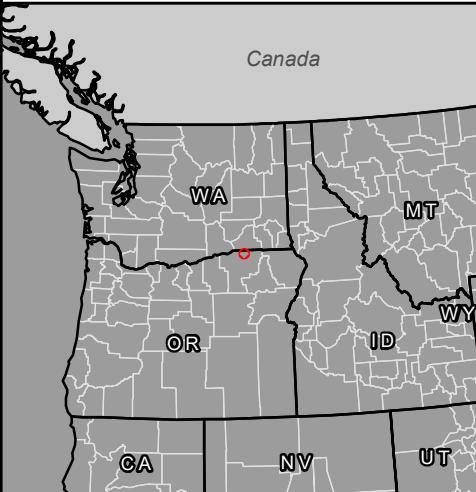
Figure K-3. County/  
Local Road Setback  
Analysis  
Page 2 of 5

UMATILLA, OR

- Existing Turbines
- County/Local Roads
- County/Local Roads  
163.9-meter Buffer
- Project Boundary

TETRA TECH

Reference Map



Stateline Wind Project  
Request for Amendment 6  
**Vansycle II**

**Figure K-3. County/  
Local Road Setback  
Analysis**  
Page 3 of 5

UMATILLA, OR

- Existing Turbines
- County/Local Roads
- County/Local Roads  
163.9-meter Buffer
- Project Boundary

 TETRA TECH

Reference Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



1:2,787 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.05 0.1 0.2 Miles

Stateline Wind Project  
Request for Amendment 6

Vansycle II

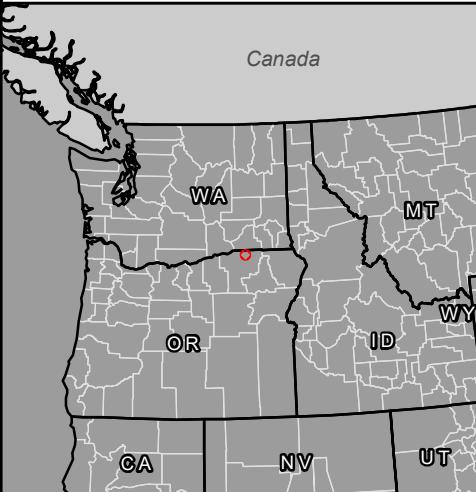
Figure K-3. County/  
Local Road Setback  
Analysis  
Page 4 of 5

UMATILLA, OR

- Existing Turbines
- County/Local Roads
- County/Local Roads  
163.9-meter Buffer
- Project Boundary

TETRA TECH

Reference Map



Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure K-3. County/  
Local Road Setback  
Analysis  
Page 5 of 5

UMATILLA, OR

- Existing Turbines
- County/Local Roads
- County/Local Roads  
163.9-meter Buffer
- Project Boundary

TETRA TECH

Reference Map



**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 4. Retirement Cost Estimates**

**Vansycle II Repowering**  
**COST ESTIMATE FOR FACILITY SITE RESTORATION**  
 (Unit Costs in 1st Quarter 2009 Dollars)

Adjustment Factor: 1.361201

GDP Index 1st Quarter 2009:

100

Current Quarter:

Q1 2021

GDP Index Current Quarter:

136.1201

<https://www.oregon.gov/das/OEA/Pages/forecastcorev.aspx>

Cost Estimate Component	Quantity	Unit Cost	Extension
<b>Turbines and Towers</b>			
Disconnect electrical, ready for disassembly (per turbine)	45	\$1,051	\$47,295
Remove turbine blades and hubs (per tower)	45	\$4,112	\$185,040
Remove turbine nacelles and towers (per net ton of steel)	16,054	\$78.45	\$1,259,436
Transport and unload scrap (per net ton of steel)	16,054	\$26.48	\$425,110
<b>Foundation and Pad Areas</b>			
Remove and load pad transformers (per tower)	45	\$2,430	\$109,350
Remove turbine foundations (per cubic yard of concrete)	1,302	\$35.24	\$45,875
Restore turbine turnouts (per tower)	45	\$102	\$4,590
<b>Substations</b>			
Dismantle and dispose of substation (per unit)	1	\$58,635	\$58,635
<b>Met Towers</b>			
Dismantle and dispose of met towers (per tower)	2	\$7,816	\$15,632
<b>Collector System</b>			
Remove junction boxes	9	\$1,418	\$12,762
<b>O&amp;M Facility</b>			
Dismantle and dispose of O&M facility (per unit)	1	\$12,726	\$12,726
<b>Transmission Lines</b>			
Remove 230-kV transmission line (per mile)	13	\$18,261	\$237,393
<b>Access Roads</b>			
Road removal, grading and seeding (per mile)	23	\$17,547	\$403,581
<b>Temporary Areas</b>			
Restore areas disturbed during restoration work (per acre)	321	\$2,978	\$955,938
<b>General Costs</b>			
Permits, mobilization, engineering, overhead, utility disconnects		\$465,536	\$465,536
<b>Subtotal</b>			\$4,238,900
<b>Subtotal Adjusted to Current Dollars</b>			\$5,769,996
Performance Bond @	1%		\$57,700
<b>Gross Cost (Adjusted)</b>			\$5,827,696
Administration and Project Management @	10%		\$582,770
Future Developments Contingency @	10%		\$582,770
<b>Total Site Restoration Cost (current dollars)</b>			\$6,993,236
<b>Total Site Restoration Cost (rounded to nearest \$1,000)</b>			\$6,993,000

**CBS Outline Report****TETRA TECH EC, INC.****Job Code: Vansycle II Battery Storage Retirement****Description: Decommissioning Estimate****From Cost Item: .****To Cost Item: .**

Code Description	Forecast (T/O) Quantity	Unit of Measure	Unit Cost	Total Cost (Forecast)	Currency
1 VANSYCLE II BATTERY STORAGE (Concurrent Activity)					
1.1 DC Storage System Retirement	50.00	MW	3,129.09	156,454.48	U.S. Dollar
1.1.1 Battery Removal & Disposal	50.00	MW	1,992.81	99,640.44	U.S. Dollar
1.1.1.1 Remove Batteries, Load For Transport	8.00	Day	3,908.78	31,270.24	U.S. Dollar
1.1.1.2 Transport Batteries	17.00	Each	1,480.60	25,170.20	U.S. Dollar
1.1.1.2.1 Roll Off Liners	17.00	Each	105.60	1,795.20	U.S. Dollar
1.1.1.2.2 Trucking - Per Load	17.00	Each	1,375.00	23,375.00	U.S. Dollar
1.1.1.3 Disposal Fee's	216.00	Ton	200.00	43,200.00	U.S. Dollar
1.1.2 Structure & Components Removal	50.00	MW	1,136.28	56,814.04	U.S. Dollar
1.1.2.1 Refrigerant Recovery	4.00	Day	1,119.79	4,479.15	U.S. Dollar
1.1.2.2 Structure Demo	214.50	Ton	84.61	18,149.89	U.S. Dollar
1.1.2.3 Trucking - Per Load	17.00	Each	1,375.00	23,375.00	U.S. Dollar
1.1.2.4 Disposal Cost	214.50	Ton	30.00	6,435.00	U.S. Dollar
1.1.2.5 Glycol Recovery & Disposal	4,375.00	Gallon	1.00	4,375.00	U.S. Dollar
1.2 Spot Grade Disturbed Areas	11.00	Acre	585.17	6,436.88	U.S. Dollar
1.3 Re-Seed With Native Vegetation	11.00	Acre	500.00	5,500.00	U.S. Dollar
1.4 Contractor Markups	1.00	Lump Sum	27,599.32	27,599.32	U.S. Dollar
1.4.1 Contractor Contingency (3% Of Cost)	1.00	Lump Sum	5,051.73	5,051.73	U.S. Dollar
1.4.2 Contractor OH & Fee (13% Of Cost)	1.00	Lump Sum	22,547.59	22,547.59	U.S. Dollar
1.5 ODOE Markups	1.00	Lump Sum	39,198.20	39,198.20	U.S. Dollar
1.5.1 Administration & Project Management	1.00	Lump Sum	19,599.10	19,599.10	U.S. Dollar
1.5.2 Future Development Contingency	1.00	Lump Sum	19,599.10	19,599.10	U.S. Dollar
<b>Total: VANSYCLE II BATTERY STORAGE (Concurrent Activity)</b>				<b>235,188.88</b>	
<b>Grand Total:</b>				<b>235,188.88</b>	

**Estimate Summary****TETRA TECH EC, INC.****Job Code: Vansycle II Battery Storage Retirement****Description: Decommissioning Estimate**

Cost Item									
CBS Position Code	Quantity UM	Description	Days	Cost UM/Day	Source	Currency	Unit Cost	Total Cost	
1	1.00 Lump Sum	VANSYCLE II BATTERY STORAGE (Concurrent Activity)	18.75	0.05	Detail	U.S. Dollar	235,188.88	235,188.88	
1.1	50.00 MW	DC Storage System Retirement	15.75	3.17	Detail	U.S. Dollar	3,129.09	156,454.48	
1.1.1	50.00 MW	Battery Removal & Disposal	8.00	6.25	Detail	U.S. Dollar	1,992.81	99,640.44	
1.1.1.1	8.00 Day	Remove Batteries, Load For Transport	8.00	1.00	Detail	U.S. Dollar	3,908.78	31,270.24	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
L060100	GENERAL LABORER		640.00	8.00	Each (hourly)		U.S. Dollar	38.04	24,343.84
RLIFTS05	JCB 508C, 8,000lbs FRKLFT		320.00	4.00	Each (hourly)		U.S. Dollar	21.65	6,926.40
1.1.1.2	17.00 Each	Transport Batteries	0.00	0.00	Detail	U.S. Dollar	1,480.60	25,170.20	
1.1.1.2.1	17.00 Each	Roll Off Liners	0.00	0.00	Detail	U.S. Dollar	105.60	1,795.20	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
UODCLINER	Rolloff Liner			17.00	Each		U.S. Dollar	105.60	1,795.20
1.1.1.2.2	17.00 Each	Trucking - Per Load	0.00	0.00	Detail	U.S. Dollar	1,375.00	23,375.00	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
USTRUCKING	Trucking Sub			23,375.00	Each		U.S. Dollar	1.00	23,375.00
1.1.1.3	216.00 Ton	Disposal Fee's		0.00	0.00	Detail	U.S. Dollar	200.00	43,200.00
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
USDISPOSAL	Disposal Fee's			43,200.00	Each		U.S. Dollar	1.00	43,200.00
1.1.2	50.00 MW	Structure & Components Removal	7.75	6.45	Detail	U.S. Dollar	1,136.28	56,814.04	
1.1.2.1	4.00 Day	Refrigerant Recovery	4.00	1.00	Detail	U.S. Dollar	1,119.79	4,479.15	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
L010110	ELECTRCIAN		80.00	2.00	Each (hourly)		U.S. Dollar	55.99	4,479.15
1.1.2.2	214.50 Ton	Structure Demo	3.75	57.20	Detail	U.S. Dollar	84.61	18,149.89	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
*REXCAV06A	Excav 100K w/ Bucket & Grapple		37.50	1.00	Each (hourly)		U.S. Dollar	124.54	4,670.06
*REXCAV06E	Excav 100K w/ Shear		37.50	1.00	Each (hourly)		U.S. Dollar	185.50	6,956.06
L010101	OPERATOR		75.00	2.00	Each (hourly)		U.S. Dollar	48.95	3,670.97
L060100	GENERAL LABORER		75.00	2.00	Each (hourly)		U.S. Dollar	38.04	2,852.79
1.1.2.3	17.00 Each	Trucking - Per Load	0.00	0.00	Detail	U.S. Dollar	1,375.00	23,375.00	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
USTRUCKING	Trucking Sub			23,375.00	Each		U.S. Dollar	1.00	23,375.00
1.1.2.4	214.50 Ton	Disposal Cost		0.00	0.00	Detail	U.S. Dollar	30.00	6,435.00
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
USDISPOSAL	Disposal Fee's			6,435.00	Each		U.S. Dollar	1.00	6,435.00
1.1.2.5	4,375.00 Gallon	Glycol Recovery & Disposal	0.00	0.00	Detail	U.S. Dollar	1.00	4,375.00	
Resource Code	Description		Hours	Quantity UM	Currency		Unit Cost	Total Cost	
USLIQUID	Liquids T&D			4,375.00	Each		U.S. Dollar	1.00	4,375.00
1.2	11.00 Acre	Spot Grade Disturbed Areas	3.00	3.67	Detail	U.S. Dollar	585.17	6,436.88	

CBS Position Code	Quantity UM	Description	Cost Item				Unit Cost	Total Cost
			Days	UM/Day	Cost Source	Currency		
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
*RDOZER08	CAT D6 LGP Dozer	60.00	2.00 Each (hourly)	U.S. Dollar	58.34	3,500.10		
L010101	OPERATOR	60.00	2.00 Each (hourly)	U.S. Dollar	48.95	2,936.78		
<b>Notes:</b> *****								
Assume topsoil was stock piled on site during original construction, and available for re-use								
1.3	11.00 Acre	Re-Seed With Native Vegetation	0.00	0.00 Detail	U.S. Dollar	500.00	5,500.00	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USLANDSCAPE	Landscape Sub		11.00 Acre	U.S. Dollar	500.00	5,500.00		
1.4	1.00 Lump Sum	Contractor Markups	0.00	0.00 Detail	U.S. Dollar	27,599.32	27,599.32	
1.4.1	1.00 Lump Sum	Contractor Contingency (3% Of Cost)	0.00	0.00 Detail	U.S. Dollar	5,051.73	5,051.73	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USMARKUP5	3% Markup		168,391.00 Each	U.S. Dollar	0.03	5,051.73		
1.4.2	1.00 Lump Sum	Contractor OH & Fee (13% Of Cost)	0.00	0.00 Detail	U.S. Dollar	22,547.59	22,547.59	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
USMARKUP	13% Markup		173,443.00 Each	U.S. Dollar	0.13	22,547.59		
1.5	1.00 Lump Sum	ODOE Markups	0.00	0.00 Detail	U.S. Dollar	39,198.20	39,198.20	
1.5.1	1.00 Lump Sum	Administration & Project Management	0.00	0.00 Detail	U.S. Dollar	19,599.10	19,599.10	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
UODCODOE	ODOE Management		195,991.00 Each	U.S. Dollar	0.10	19,599.10		
1.5.2	1.00 Lump Sum	Future Development Contingency	0.00	0.00 Detail	U.S. Dollar	19,599.10	19,599.10	
Resource Code	Description	Hours	Quantity UM	Currency	Unit Cost	Total Cost		
UODCODOE	ODOE Management		195,991.00 Each	U.S. Dollar	0.10	19,599.10		
<b>Report Total:</b>						18.75	235,188.88	

Category	Total
Labor	38,283.53
Rented Equipment	22,052.63
Supplies	1,795.20
Subcontract	129,484.32
Travel-Risk-Adj	4,375.00
ODCs	39,198.20

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 5. Washington Ground Squirrel Surveys**

---

**To:** Gregory Rimbach, ODFW; Siting Officer, ODOE

**Cc:** Chris Powers, NextEra; Carrie Konkol, Tetra Tech

**From:** FPL Energy Stateline II, Inc. (FPL Stateline)

**Date:** Friday, June 11, 2021

**Subject:** Vansycle II - 2021 Washington Ground Squirrel Surveys

---

## Introduction

FPL Stateline (the Certificate Holder) is submitting a Request for Amendment 6 (RFA 6), to amend the approved turbine specifications, megawatt output, number of turbines, and associated development improvements in consideration of repowering Vansycle II (Facility) and adding 50 megawatts of battery storage. Request for Amendment 5 (RFA 5) approved dimensional changes to the approved turbine dimensions to allow for existing turbine towers to be upgraded/repowered to current technology by replacing the nacelles, hubs, rotors, and turbine blades along with associated temporary construction impacts<sup>1</sup>. However, since RFA 5's approval, technology has changed and the components planned to be used for the repower are no longer available. Therefore, RFA 6 proposes changes that allow for repowering flexibility.

This memo describes the Washington ground squirrel (*Urocitellus washingtoni*; WAGS) surveys that were performed for the Facility in 2021. The Certificate Holder contracted with Tetra Tech, Inc. (Tetra Tech) to conduct these surveys in support of RFA 6 and to meet pre-construction compliance if the Facility schedule allows for construction to start prior to the next WAGS survey window. WAGS surveys were last conducted at the Facility in 2018.

In a memo dated April 12, 2021 (Attachment 1), Tetra Tech requested approval from Greg Rimbach at Oregon Department of Fish and Wildlife (ODFW) for the 2021 WAGS survey protocol. ODFW approved the survey protocol, with one comment regarding suitable climatic conditions, in an email on April 26, 2021 (Attachment 2).

---

<sup>1</sup> Increasing the maximum blade tip height from 416 to 440 feet, rotor diameter from 305 to 354 feet, and decreasing minimum aboveground blade tip clearance from 110 to 85 feet.

## Survey Summary

The surveys were performed within a survey area defined by site certificate Condition 56 as presented in the Fifth Amended Site Certificate for the Stateline Wind Project (May 2019). The condition reads:

*This condition does not apply to Stateline 2. The certificate holder shall conduct appropriate pre-construction surveys for the presence of Washington ground squirrels in construction zones that have suitable habitat. Construction zones include the areas of permanent and temporary disturbance and a 175-foot surrounding buffer in which there may be incidental construction impacts. If squirrel activity is found, the certificate holder shall notify the Department of Energy and develop an appropriate no-construction buffer and other appropriate mitigation measures in consultation with the Department and ODFW. In addition, the certificate holder shall map and stake sensitive areas to be avoided during construction as required by Condition (63). [Amendments #2,#4; AMD5]*

The survey area is shown in the attached figures.

Surveys were performed twice across the entire survey area. The first survey occurred on the morning of April 26, 2021, and the second survey occurred on the morning of May 12, 2021. Conditions were ideal for surveying, with low winds, clear skies, and moderate temperatures. No WAGS were observed either visually or audibly. Burrowing mammal activity was observed, but none was indicative of WAGS activity. The surveys indicate that there are not any WAGS colonies or individuals within the 2021 survey area.

# **Figures**

Stateline Wind Project  
Request for Amendment 6

Vansycle II



Overview  
Washington Ground Squirrel  
2021 Survey Areas  
UMATILLA, OR

- Map Tiles
- 2018 WAGS Survey Area
- Disturbance Boundary
- 2008/2009 Washington Ground Squirrel Colony

**Habitat Mapping**

- Change from CRP (2008) to Dry Agriculture (2018)
- Conservation Reserve Program or Revegetated
- Developed
- Dry Agriculture
- Grassland Steppe
- Grassland Steppe - Shrub Steppe
- Riparian or Riparian Trees
- Shrub Steppe

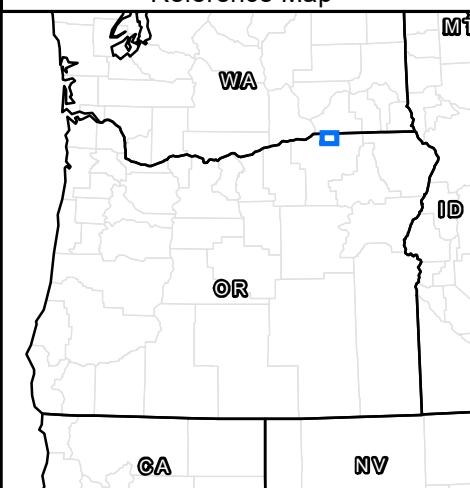


0 0.25 0.5 1 Miles  
1:63,360

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l

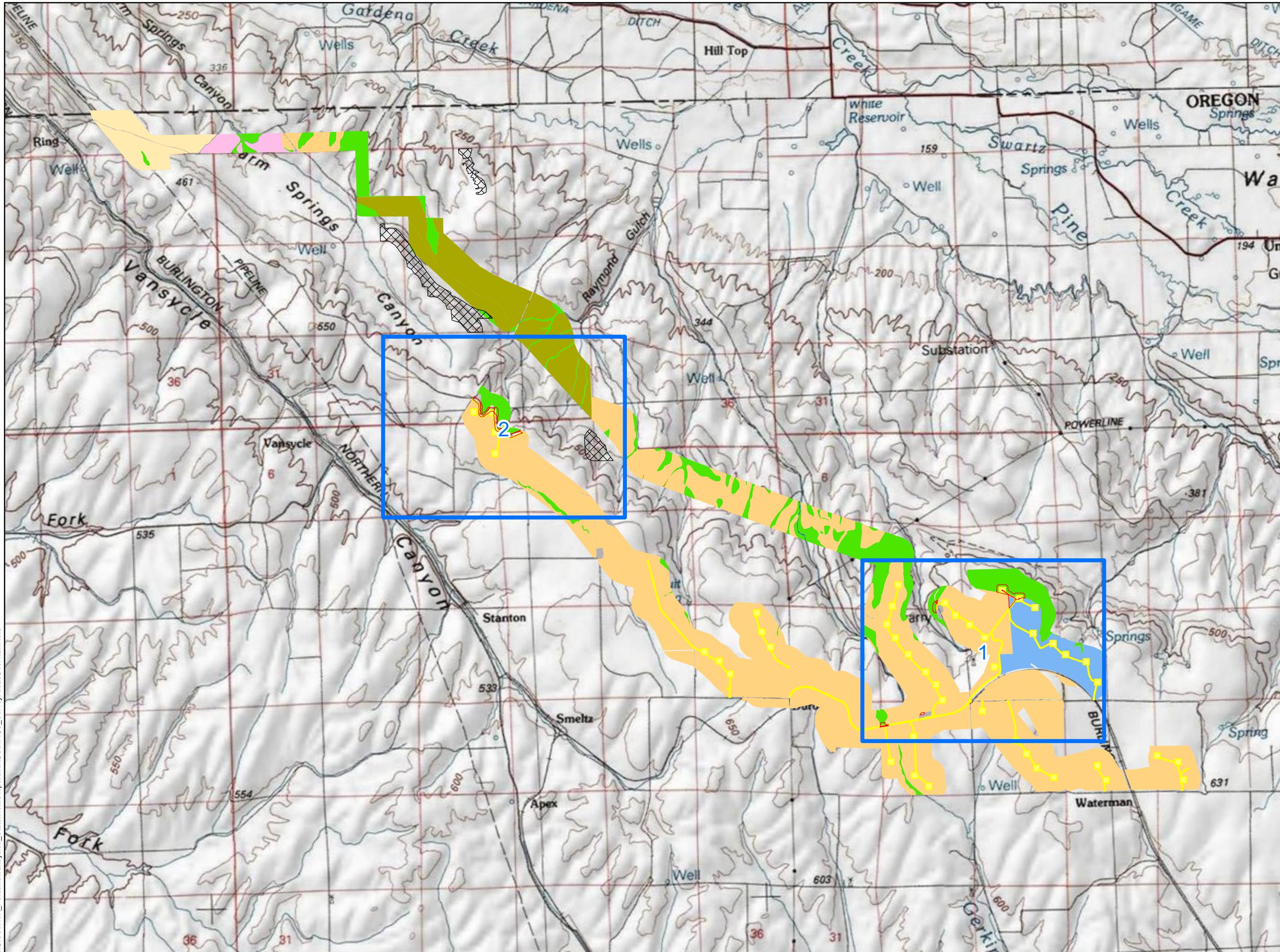


Reference Map



Data Sources:  
ESRI Streetmap

Not for Construction



Stateline Wind Project  
Request for Amendment 6

Vansycle II



Map Number 1  
Washington Ground Squirrel  
2021 Survey Areas  
UMATILLA, OR

2021 WAGS Survey  
Disturbance Boundary



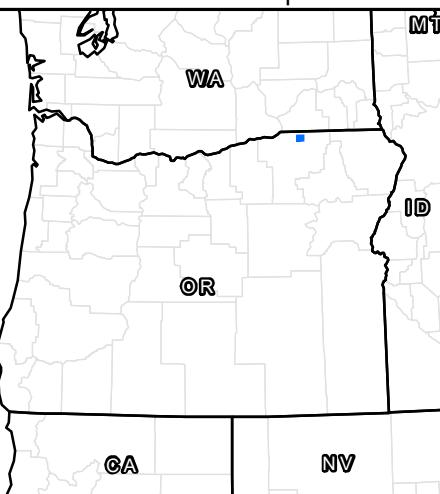
0 250 500 1,000  
Feet

1:12,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl



Reference Map



Data Sources:  
ESRI Streetmap

Not for Construction





# Stateline Wind Project

## Request for Amendment 6

# Vansycle II



# Map Number 2

## Washington Ground Squirrel

### 2021 Survey Areas

UMATILLA, OR

- 2021 WAGS Survey
- 2008/2009 Washington Ground Squirrel Colony
- Disturbance Boundary

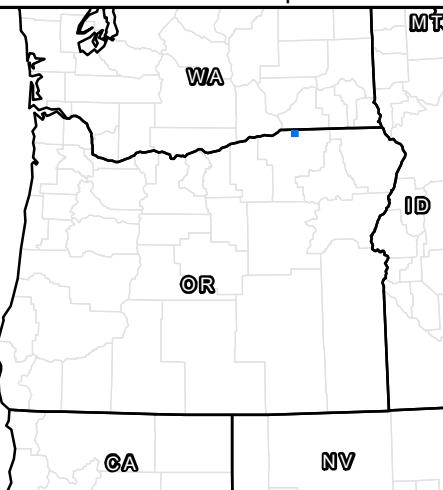


0 250 500 1,000 Feet

1:12,000  
AD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

TETRA TECH

## Reference Map



## Data Sources:

Not for Construction

## **Attachment 1. WAGS Survey Protocol**



## MEMO

---

To: Greg Rimbach, Oregon Department of Fish and Wildlife

Cc: Chris Powers, NextEra; Carrie Konkol, Tetra Tech

From: Matt Cambier, Tetra Tech

Date: April 12, 2021

Correspondence #: TTCES-PTLD-2021-045

---

Subject: Vansycle II 2021 Washington Ground Squirrel Survey Protocol

---

This memo describes the Washington ground squirrel (*Urocitellus washingtoni*; WAGS) surveys proposed to occur in support of FPL Energy Vansycle, LLC's (certificate holder) Vansycle II Wind Project Repower (Project) located in Umatilla County, Oregon. The certificate holder contracted with Tetra Tech, Inc. (Tetra Tech) to conduct these surveys in support of Request for Amendment #6 of the site certificate and to meet pre-construction compliance if the Project schedule allows for construction to start prior to the next WAGS survey window. WAGS surveys were last conducted onsite in 2018.

### Survey Approach and Schedule

Tetra Tech proposes to conduct surveys in accordance with the Condition 56, as presented in the Fifth Amended Site Certificate for the Stateline Wind Project (EFSC, May 2019) The condition reads:

*This condition does not apply to Stateline 2. The certificate holder shall conduct appropriate pre-construction surveys for the presence of Washington ground squirrels in construction zones that have suitable habitat. Construction zones include the areas of permanent and temporary disturbance and a 175-foot surrounding buffer in which there may be incidental construction impacts. If squirrel activity is found, the certificate holder shall notify the Department of Energy and develop an appropriate no-construction buffer and other appropriate mitigation measures in consultation with the Department and ODFW. In addition, the certificate holder shall map and stake sensitive areas to be avoided during construction as required by Condition (63). [Amendments #2,#4; AMD5]*

Habitat not suitable for WAGS, and therefore not included in the surveys, will include developed areas and areas of active agriculture and rocky or talus habitat or other non-suitable soil conditions.

The survey area is depicted in the attached figures. Tetra Tech will follow a methodology generally consistent with a protocol developed by Morgan and Nugent (1999)<sup>1</sup> and is consistent with prior surveys conducted onsite.

Two phases of surveys will be completed. The first phase of ground surveys will be performed sometime between mid-April and May 1, 2021. The second phase of surveys will be completed no earlier than two weeks after the first phase, and prior to May 31.

Surveys will be conducted in the morning, beginning at least one hour after sunrise to allow for temperatures to increase sufficiently to support ground squirrel activity and typically ending in the early afternoon. Pedestrian surveys will be conducted by two biologists walking meandering transects spaced evenly within the survey area. Biologists will document signs (burrow openings, scat, sign of fresh activity, sightings, and vocalizations) of WAGS along the transects. Surveys may continue when moderate winds occur when the experienced surveyors have determined that squirrels can still be detected with relative certainty. Whenever a WAGS sign is identified, the area immediately surrounding the sign will be intensively searched by walking spirally around the confirmed detection outwards 35 meters to the next outermost transect line to provide sufficient coverage to determine the extent of any active site/colony.

Information recorded for each colony will include habitat type, the locations of activity centers and colony boundaries using a GPS unit, the approximate number of burrows, how the colony was first discovered (e.g., sighting, vocalization, sign such as scat at a fresh burrow), and a couple of representative photographs of burrows, scat, and habitat at active colonies.

The second phase of surveys will follow the same method as the first phase, except that transects will be offset from the first phase of survey, and potential burrows identified in the first phase will be approached from a different direction where feasible.

---

<sup>1</sup> Morgan, R.L., and M. Nugent. 1999. Status and Habitat Use of the Washington Ground Squirrel (*Spermophilus washingtoni*) on State of Oregon Lands, South Boeing, Oregon in 1999. Report to the Oregon Department of Fish and Wildlife.

## **Attachment 2. Correspondence with ODFW**

**From:** [Cambier, Matt](#)  
**To:** [Gregory Rimbach](#)  
**Cc:** [Powers, Christopher](#); [Konkol, Carrie](#)  
**Subject:** RE: Vansycle II - 2021 Washington ground squirrel survey protocol  
**Date:** Friday, April 16, 2021 3:06:09 PM

---

Thank you Greg. We do follow the wind cutoff you mention, it was an oversight to not include that description in the memo for you.

**Matt Cambier | Biologist**

Direct: 208.489.2861 | Cell: 208.954.9415  
[matt.cambier@tetratech.com](mailto:matt.cambier@tetratech.com)

**Tetra Tech | Boise Office**

3380 Americana Terrace, Suite 201 | Boise, Idaho 83706 | [www.tetratech.com](http://www.tetratech.com)

PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

---

**From:** Gregory Rimbach <Gregory.P.Rimbach@state.or.us>

**Sent:** Friday, April 16, 2021 4:01 PM

**To:** Cambier, Matt <Matt.Cambier@tetratech.com>

**Cc:** Powers, Christopher <Christopher.Powers@nexternaenergy.com>; Konkol, Carrie <Carrie.Konkol@tetratech.com>; Gregory Rimbach <Gregory.P.Rimbach@state.or.us>

**Subject:** RE: Vansycle II - 2021 Washington ground squirrel survey protocol

**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Hello Matt: Just a few comments on your Memo dated April 12, 2012 (Correspondence TTCES-PTLD-2021-045):

- Your WGS survey needs to include an additional protocol for excessive winds during the survey. Please include a protocol that when winds reach or exceed 15 mph, surveys need to be halted and postponed until winds decrease below this 15mph threshold.
- I'm confused as to why in Condition 56 there is a 175-foot buffer. I have not heard of this size buffer before. With that said, since it is in the Amended Site Certificate as such, this is the size of the buffer for these pre-construction surveys for WGS.

In summary, the survey protocol is acceptable if you include the 15mph threshold outlined above.

If you have any questions, just let me know.

**Greg Rimbach**  
Umatilla District Wildlife Biologist  
Oregon Department of Fish & Wildlife

73471 Mytinger Lane  
Pendleton, OR 97801  
[gregory.p.rimbach@state.or.us](mailto:gregory.p.rimbach@state.or.us)  
541.318.7968

---

**From:** Cambier, Matt <[Matt.Cambier@tetrtech.com](mailto:Matt.Cambier@tetrtech.com)>  
**Sent:** Monday, April 12, 2021 2:42 PM  
**To:** Gregory Rimbach <[Gregory.P.Rimbach@state.or.us](mailto:Gregory.P.Rimbach@state.or.us)>  
**Cc:** Powers, Christopher <[Christopher.Powers@nexteraenergy.com](mailto:Christopher.Powers@nexteraenergy.com)>; Konkol, Carrie <[Carrie.Konkol@tetrtech.com](mailto:Carrie.Konkol@tetrtech.com)>  
**Subject:** Vansycle II - 2021 Washington ground squirrel survey protocol

Hi Greg,

Please see the attached memo regarding proposed surveys for Washington ground squirrels at the Vansycle II wind project. Please let us know if you have any comments or if you would like to discuss this effort.

Thank you.

**Matt Cambier** | Biologist  
Direct: 208.489.2861 | Cell: 208.954.9415  
[matt.cambier@tetrtech.com](mailto:matt.cambier@tetrtech.com)

**Tetra Tech** | Boise Office  
3380 Americana Terrace, Suite 201 | Boise, Idaho 83706 | [www.tetrtech.com](http://www.tetrtech.com)

PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 6. Raptor Nest Surveys**

# 2021 Raptor Nest Survey Report

**Vansycle II Wind Facility  
Umatilla County, Oregon**

**June 2021**

**Prepared for**



**Prepared by**



**Tetra Tech, Inc.**

This page intentionally left blank

## Table of Contents

1.0	Introduction .....	1
2.0	Methods.....	1
2.1	Survey Area.....	1
2.2	Historical Data Review.....	1
2.3	Field Survey Methods .....	1
3.0	Results and Discussion .....	2
4.0	References.....	4

## List of Tables

Table 1. Raptor Nest Activity by Survey Year .....	2
Table 2. ODFW Recommended Seasonal Activity Restrictions and Spatial Buffers for Active Nest Features .....	3

## List of Figures

Figure 1. 2021 Raptor Nest Survey Area and Nest Sites

Figure 2. Raptor Nest Sites and Seasonal Restriction Buffers

## **Acronyms and Abbreviations**

ODFW	Oregon Department of Fish and Wildlife
Project	Vansycle II
RFA 6	Request for Amendment 6
Tetra Tech	Tetra Tech, Inc.

## 1.0 Introduction

This summary report presents the methods and results for the 2021 raptor nest surveys conducted by Tetra Tech, Inc. (Tetra Tech) for the operating Vansycle II Wind Facility (Project), in support of Request for Amendment 6 (RFA 6) for the Stateline Wind Project Site Certificate, through the Oregon Energy Facility Siting Council (EFSC). Under RFA 6, the Certificate Holder (FPL Energy Stateline II) is proposing to repower the Project (formally known as Stateline 3).

The objective of these surveys was to identify active raptor nests within 0.5 miles of the maximum area of disturbance proposed in RFA 6. Specifically, surveys were performed to provide the Certificate Holder with insight regarding the likely avoidance and minimization measures (timing and spatial restrictions) that may be applied to repowering activities. An overview of the survey approach was reviewed by the Oregon Department of Fish and Wildlife (ODFW) in April 2021.

## 2.0 Methods

### 2.1 Survey Area

The Project is located within Umatilla County, approximately 5 miles northeast of Helix, Oregon. The Survey Area was identified by buffering the maximum area of disturbance proposed under RFA 6 by 0.5 miles (Figure 1). The maximum area of disturbance is the area identified by The Certificate Holder as the largest temporary work area needed to access and replace the turbine blades as part of repowering. This includes an area around each turbine and the access roads to the turbines where the movement of equipment along the existing road may result in disturbances outside of the existing road width.

The vast majority of the Survey Area is within dry agriculture habitat. Raptor nesting habitat within the Survey Area is primarily limited to drainages that contain remnant native habitat, in areas too steep to be converted to agriculture. Previous raptor nest surveys performed for the Project have identified nest locations and indicated where suitable nesting habitat exists.

### 2.2 Historical Data Review

Tetra Tech reviewed the results of raptor nests surveys previously conducted for Stateline 3 (NWC 2008, NWC 2010, Tetra Tech 2018). These data were used to focus survey efforts on known raptor nest locations, as nesting habitat is limited on the landscape. Previous raptor nest surveys identified 16 nest structures in the Survey Area (see Table 1).

### 2.3 Field Survey Methods

Tetra Tech conducted one round of ground-based surveys to inventory previously known nesting sites and search for and document new nests, including those of burrowing owls, within the Survey

Area. The survey was performed on May 15, 2021, when most raptors are either performing courtship behaviors, establishing territories, tending to nest sites, incubating eggs, delivering food to nestlings, or caring for fledglings. The survey was performed in the morning through early evening in good weather.

The surveyor did not traverse the entire Survey Area but focused on the previously identified nesting habitat from 2 years of aerial surveys (NWC 2008, NWC 2010) and one year of ground surveys (Tetra Tech 2018). The surveyor systematically drove along existing roads throughout the Survey Area to monitor known nests and search for new nests. When possible, the surveyor hiked to known nest sites that were not accessible by vehicle (e.g., drainages). The surveyor utilized binoculars and a spotting scope to maximize identification and observation of distant raptors. The surveyor monitored most known nest sites for a minimum of 30 minutes to determine activity. When raptor activity was observed, the surveyor only monitored the nest site for as long as needed to determine which raptor species was using the area and what activity was occurring at the nest. The surveyor avoided disturbing raptors as much as possible during monitoring by staying in vehicles and limiting observation time once breeding activities were confirmed.

### 3.0 Results and Discussion

The 2021 raptor nest survey monitored 18 nest sites within the Survey Area, including two newly identified nest sites and 16 nest sites previously identified in 2008, 2010, or 2018 (Table 1, Figure 1). One of the new nests, Nest ID 17, was located in the same tree as Nest ID 6 (active red-tailed hawk nest). Of the 18 nest sites, three were active, six were inactive, four were destroyed, and five were not visible. The three active nests included a Swainson's hawk, great horned owl, and red-tailed hawk nest.

**Table 1. Raptor Nest Activity by Survey Year**

Nest ID	Activity by Survey Year			
	2008	2010	2018	2021
1	Red-tailed hawk	NA	Inactive	Inactive
2	NA	Inactive	Inactive	Inactive
3	NA	Inactive	Not visible	Destroyed
4	Inactive	NA	Great horned owl	Destroyed
5	Red-tailed hawk	Red-tailed hawk	Destroyed	Destroyed
6	Great horned owl	NA	Red-tailed hawk	Red-tailed hawk
7	Great horned owl	NA	Inactive	Inactive
8	Inactive	NA	Inactive	Inactive
9	Inactive	NA	Inactive	Inactive
10	Red-tailed hawk	NA	Not visible	Not visible
11	NA	Inactive	Not visible	Not visible

Nest ID	Activity by Survey Year			
	2008	2010	2018	2021
12	NA	Inactive	Not visible	Not visible
13	NA	NA	Common raven	Destroyed
14	NA	NA	Red-tailed hawk	Great horned owl
15	Inactive	NA	NA <sup>1</sup>	Not visible
16	NA	Red-tailed hawk	NA <sup>1</sup>	Not visible
17	NA	NA	NA	Inactive
18	NA	NA	NA	Swainson's hawk

NA = Not Applicable; no nest information was recorded for that year.

1. Nest not checked because the nest was outside the 2018 survey area.

Nest IDs 10, 11, 12, 15, and 16 were not visible to the surveyor because they were in locations inaccessible to the ground-based survey approach. Nests 10, 11, and 12 were still monitored for raptor activity per the methods described above even though they were out of line of sight. While no raptor activity was observed near these five nest locations, the nests cannot confidently be classified as inactive for the 2021 season.

The purpose of this survey was to inform The Certificate Holder of potential restrictions that might be applied to repowering activities due to active raptor nests adjacent to the Project. Table 2 shows potential seasonal activity restrictions and spatial buffers around active nests of some raptor species based on review of other EFSC projects. However, ODFW will ultimately make specific recommendations for this Project.

**Table 2. ODFW Recommended Seasonal Activity Restrictions and Spatial Buffers for Active Nest Features**

Species	Nesting Period	Restricted Activity Buffer (miles) <sup>1</sup>
Peregrine falcon	Jan 1 - July 1	0.25
Prairie falcon	March 15 - July 1	0.25
Northern goshawk	May 1 - August 15	0.5
Golden eagle	Feb 1 to August 15	0.5
Red-tailed hawk	March 1 - August 15	300 - 500 feet
Swainson's hawk	April 1 - August 15	0.25
Bald eagle	January 1 - August 15	0.5
Osprey	March 1 - Sep 15	0.25
Ferruginous hawk	March 15 - August 15	0.5
Other hawks (northern harrier, rough-legged hawk, sharp-shinned hawk, Cooper's hawk)	March 1 - August 15	0.25

1. This distance should be line-of-sight. If a topographic feature (ridgeline, for example) occurs between the construction activity area and the nest, then the disturbance buffer can be lessened.

Of the species observed using the nest sites within the Survey Area in 2008, 2010, 2018, and 2021, ODFW recommends a spatial buffer of 0.25 miles for Swainson's hawk and 300 – 500 feet for red-tailed hawks. ODFW does not provide spatial buffers for great horned owls or common ravens in other EFSC documents. Additionally, according to Condition 54 of the Site Certificate, if burrowing owl burrows were detected, a no construction buffer developed in consultation with ODFW, would be placed around any active nests from March 15 to August 30. Burrowing owls were not identified during this survey.

Figure 2 shows all known nest sites within the Survey Area with a 500-foot and 0.25-mile buffer around them; however, the restricted activity buffers only apply to active nests. Only one nest site is within 500 feet of the maximum area of disturbance identified for the repowering, Nest ID 13 (Figure 2.5). Because Nest 13 has been destroyed and is no longer present, an activity buffer would not be applicable. There are four nests within 0.25 miles of the maximum area of disturbance (Nest ID 4, 5, 13, and 18; Figures 2.3, 2.5, and 2.6). Of these nests, only Nest ID 18 was an active nest (Swainson's hawk). The other three nests have been destroyed and an activity buffer would not be applicable. All other nest sites, including the nests that were not visible, are more than 0.25 miles from the maximum area of disturbance.

Nest ID 18 is the only active nest site in which the recommended restricted activity buffer (0.25 miles; Table 2) overlaps the maximum area of disturbance associated with repowering. Therefore, Nest ID 18 is the only nest that would be of concern to The Certificate Holder during repowering (unless pre-construction surveys identify currently unknown nest sites). The nest is in a small tree surrounded by agricultural lands. The one turbine within the 0.25-mile restricted activity buffer is within line of sight of the nest. The Swainson's hawk pair was engaged in courtship and nest building during the survey. The nest is expected to be occupied through mid-to late July, depending on the nest initiation date. Implementation of the restricted activity buffers presented in Table 2 will be coordinated with ODFW if construction activities cannot be avoided, including consideration of topography and other factors that ultimately determine whether a nest site will be disturbed by repowering activities. Condition 54 of the Site Certificate identified the nesting period as June 1 to August 31 (as opposed to April 1 to August 15 in Table 2).

If new nests are discovered, relevant species buffers will be implemented as appropriate.

## 4.0 References

NWC (Northwest Wildlife Consultants). 2008. Stateline 3 Wind Power Facility 2008 Biological Investigations. Pendleton, OR.

NWC. 2010. Stateline 3 Wildlife Monitoring Report for the 2010 Study Year. Pendleton, OR.

Tetra Tech (Tetra Tech, Inc.). 2018. 2018 Raptor Nest Survey Report for the Stateline Wind Project – Vansycle II Umatilla County, Oregon.

# **Figures**

This page intentionally left blank

**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

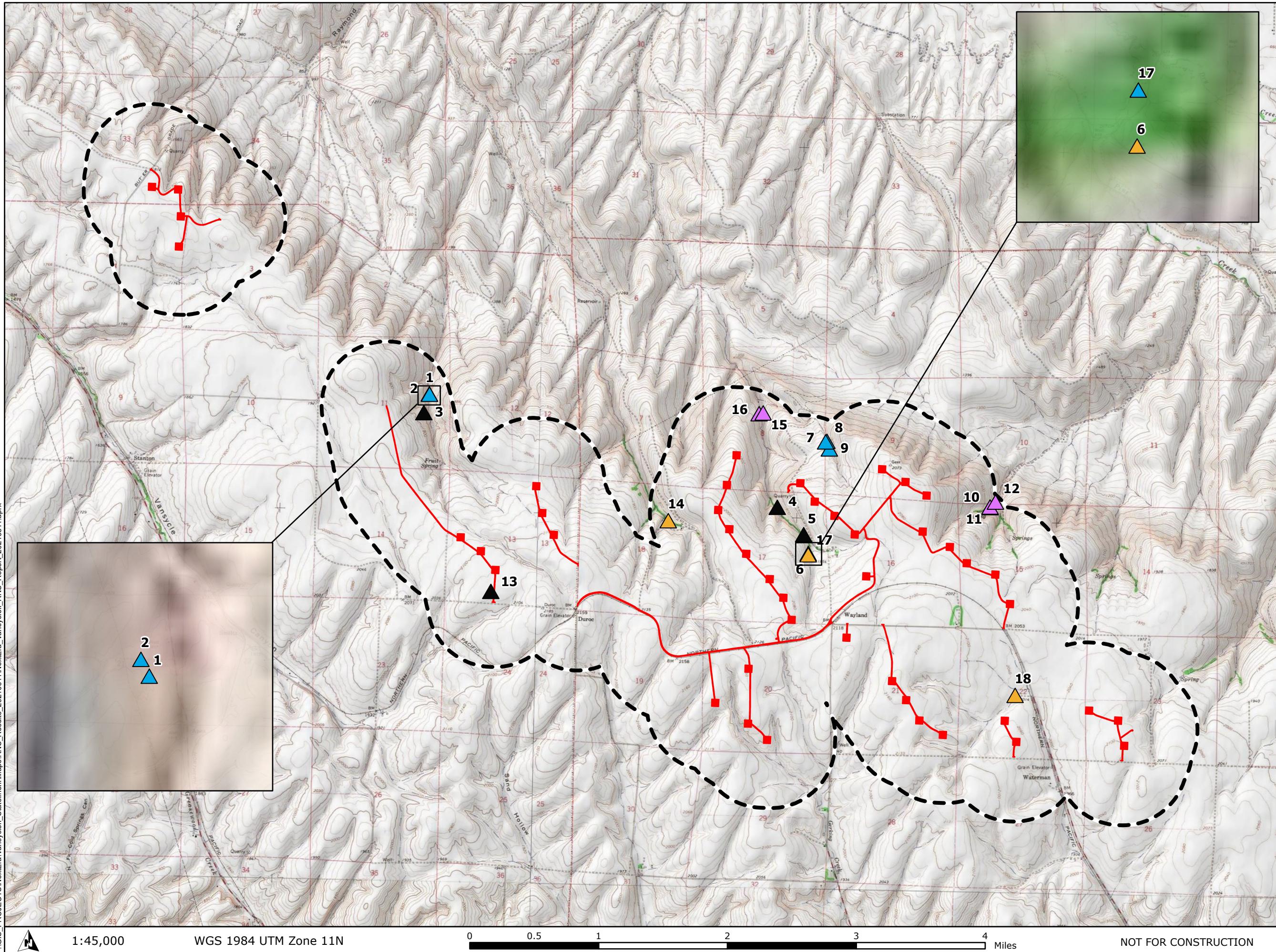
**Figure 1  
2021 Raptor Nest  
Survey Area and  
Nest Sites**

UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
  - ▲ Active
  - ▲ Destroyed
  - ▲ Inactive
  - ▲ Not visible

**NEXTERA<sup>®</sup> ENERGY**  
RESOURCES

Reference Map



**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

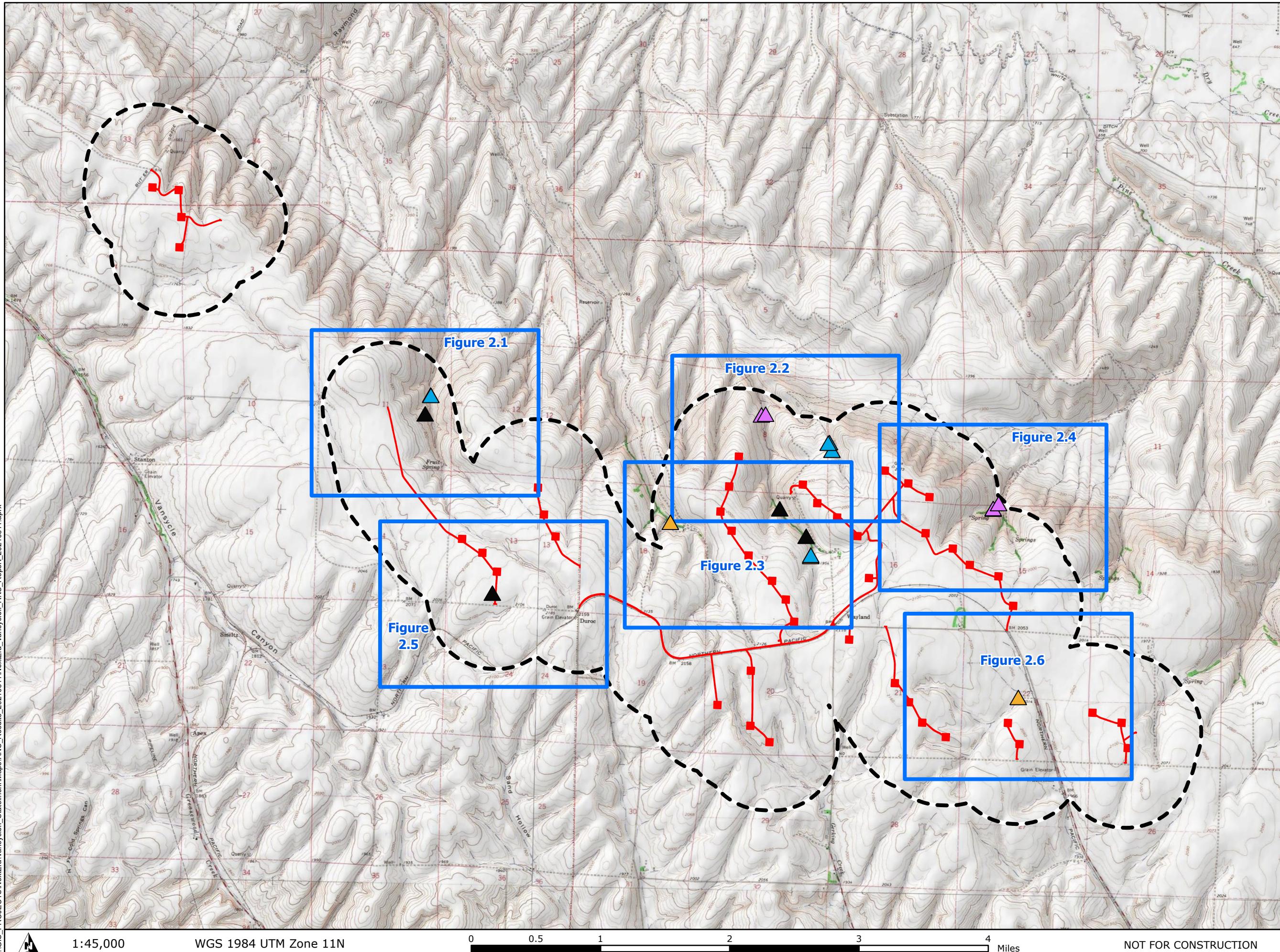
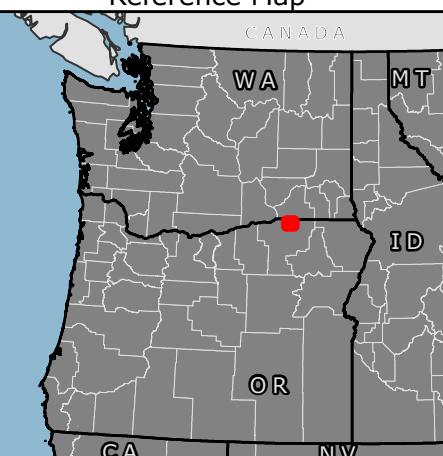
**Figure 2  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

UMATILLA COUNTY, OR

- █ Map Tiles
- █ Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
  - ▲ Active
  - ▲ Destroyed
  - ▲ Inactive
  - ▲ Not visible



Reference Map



**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

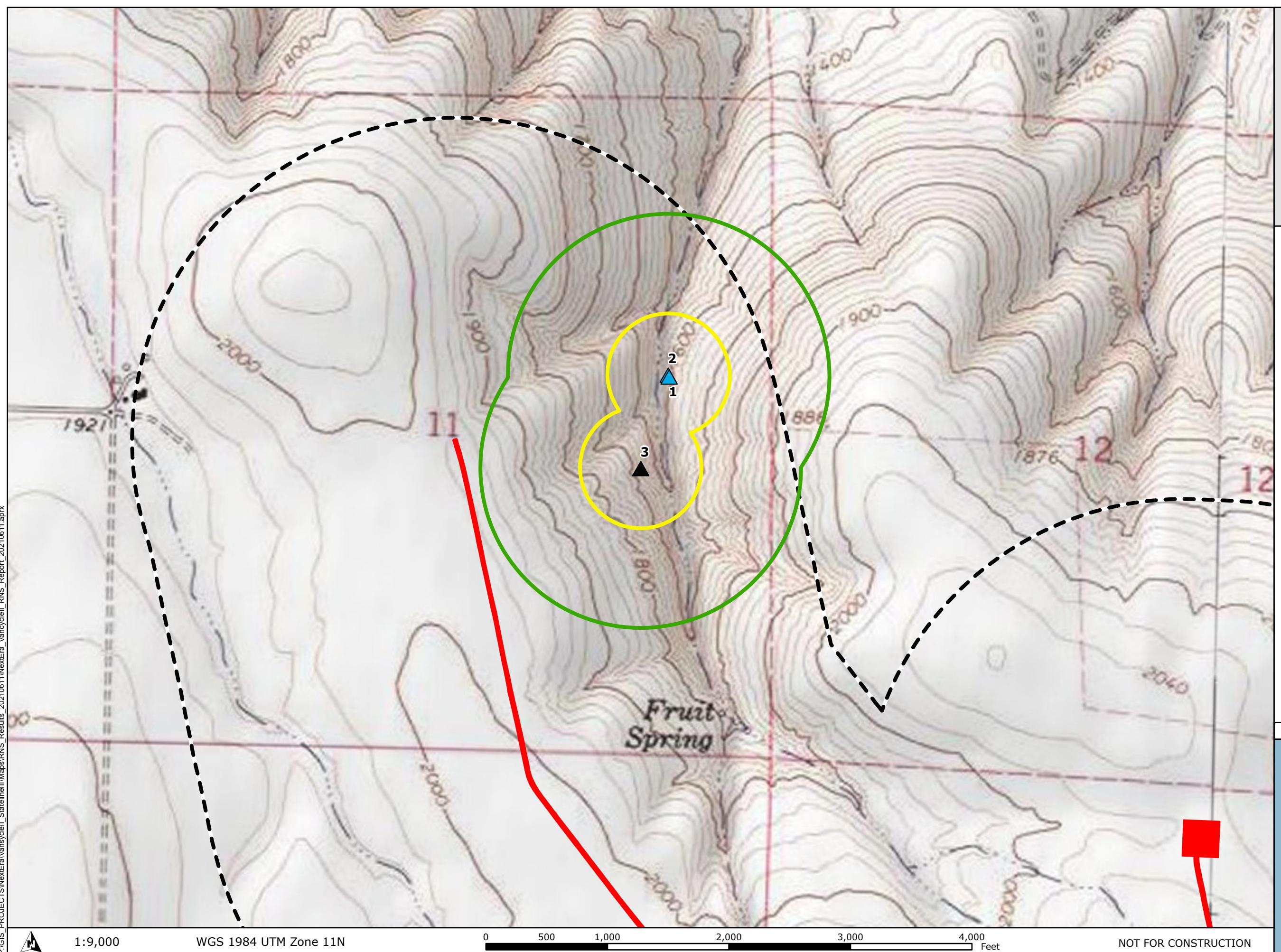
**Figure 2.1  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
- Active
- Destroyed
- Inactive
- Not visible
- Nest Buffers
- 500 ft
- 0.25 mi

**NEXTERA**  
ENERGY  
RESOURCES

Reference Map



**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

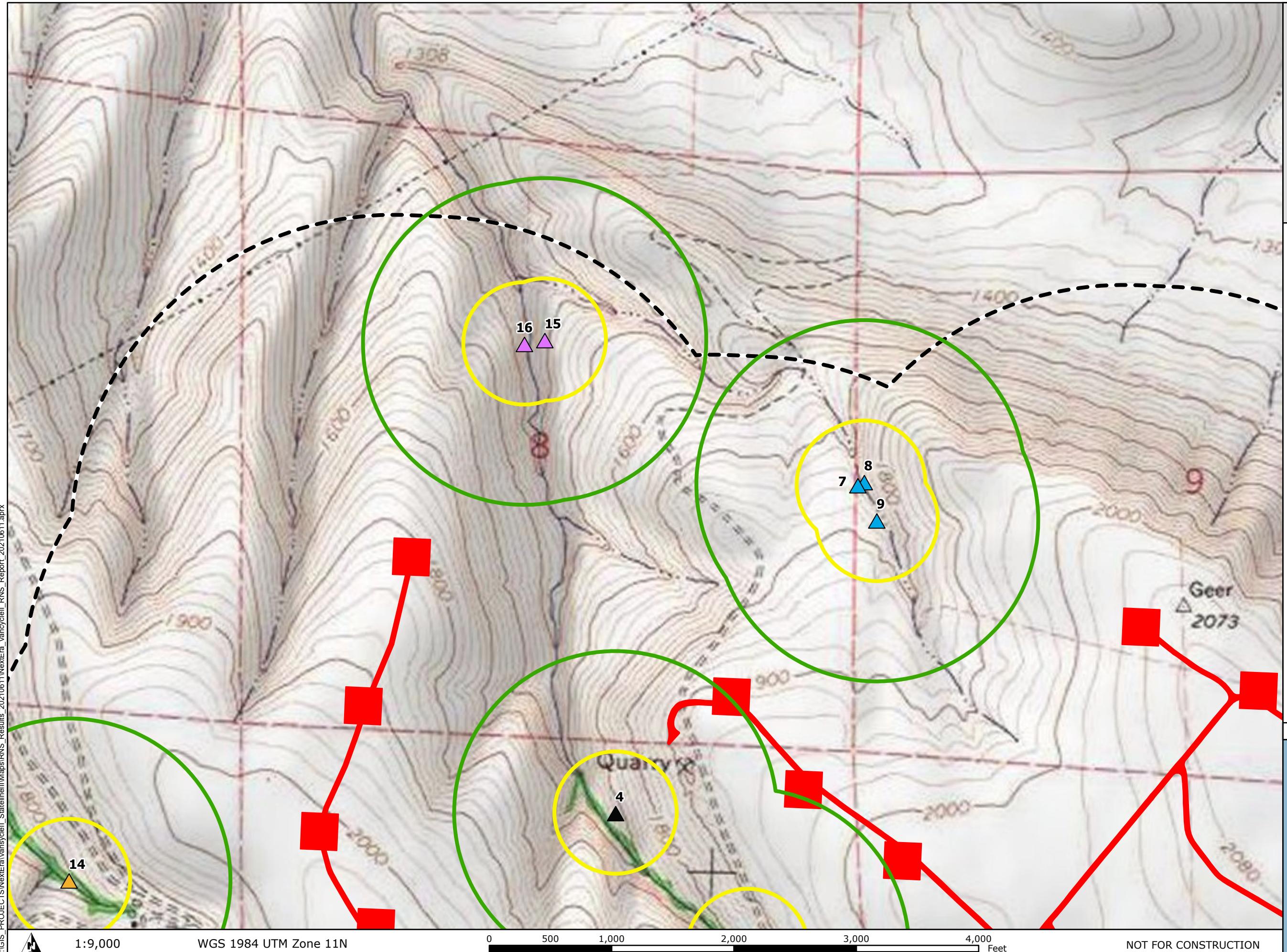
**Figure 2.2  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
- Active
- Destroyed
- Inactive
- Not visible
- Nest Buffers
- 500 ft
- 0.25 mi

**NEXTERA<sup>®</sup> ENERGY**  
RESOURCES

Reference Map



**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

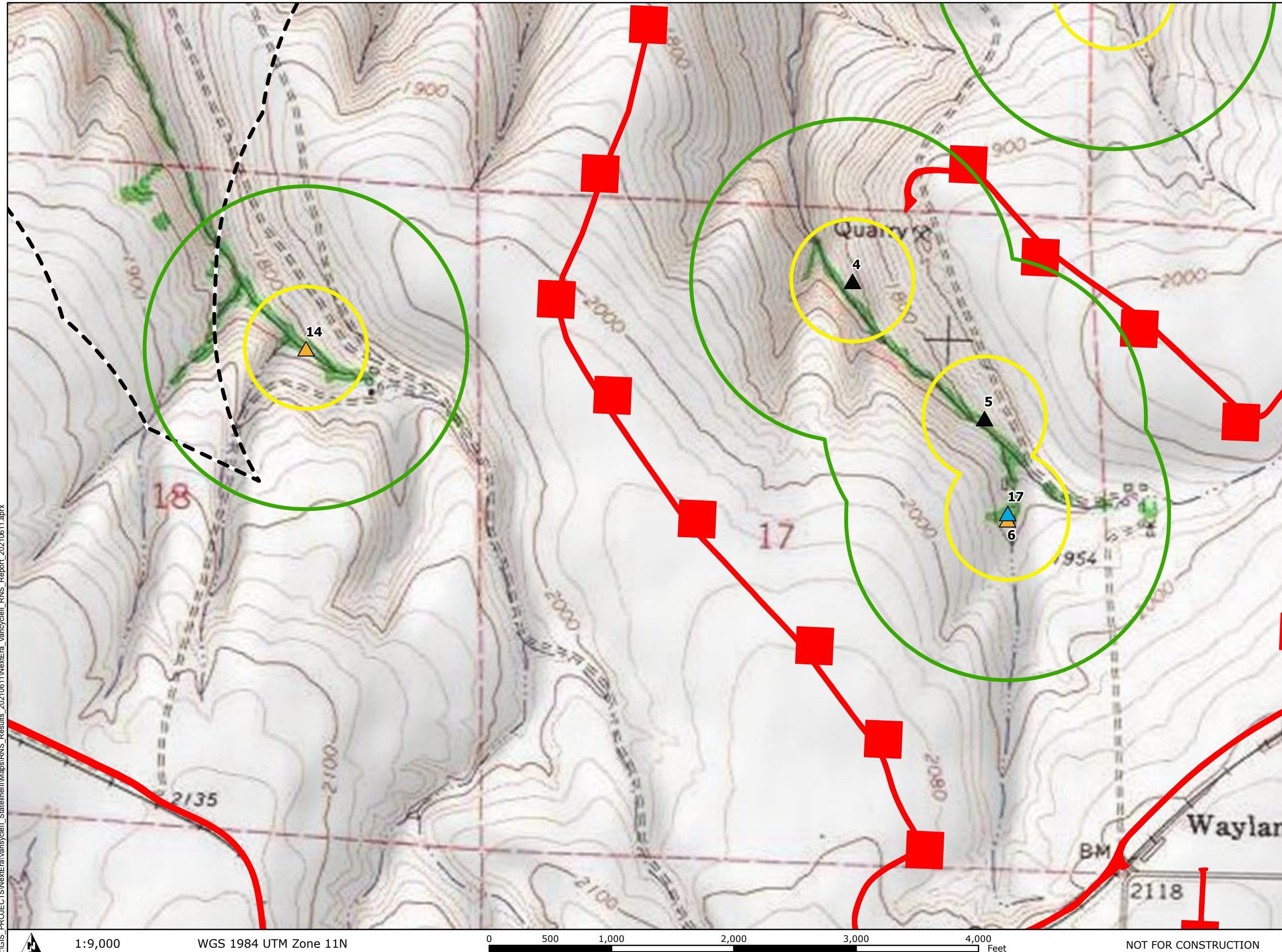
**Figure 2.3  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
  - Active
  - Destroyed
  - Inactive
  - Not visible
- Nest Buffers
  - 500 ft
  - 0.25 mi

**NEXTERA<sup>®</sup> ENERGY**  
RESOURCES

Reference Map



**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

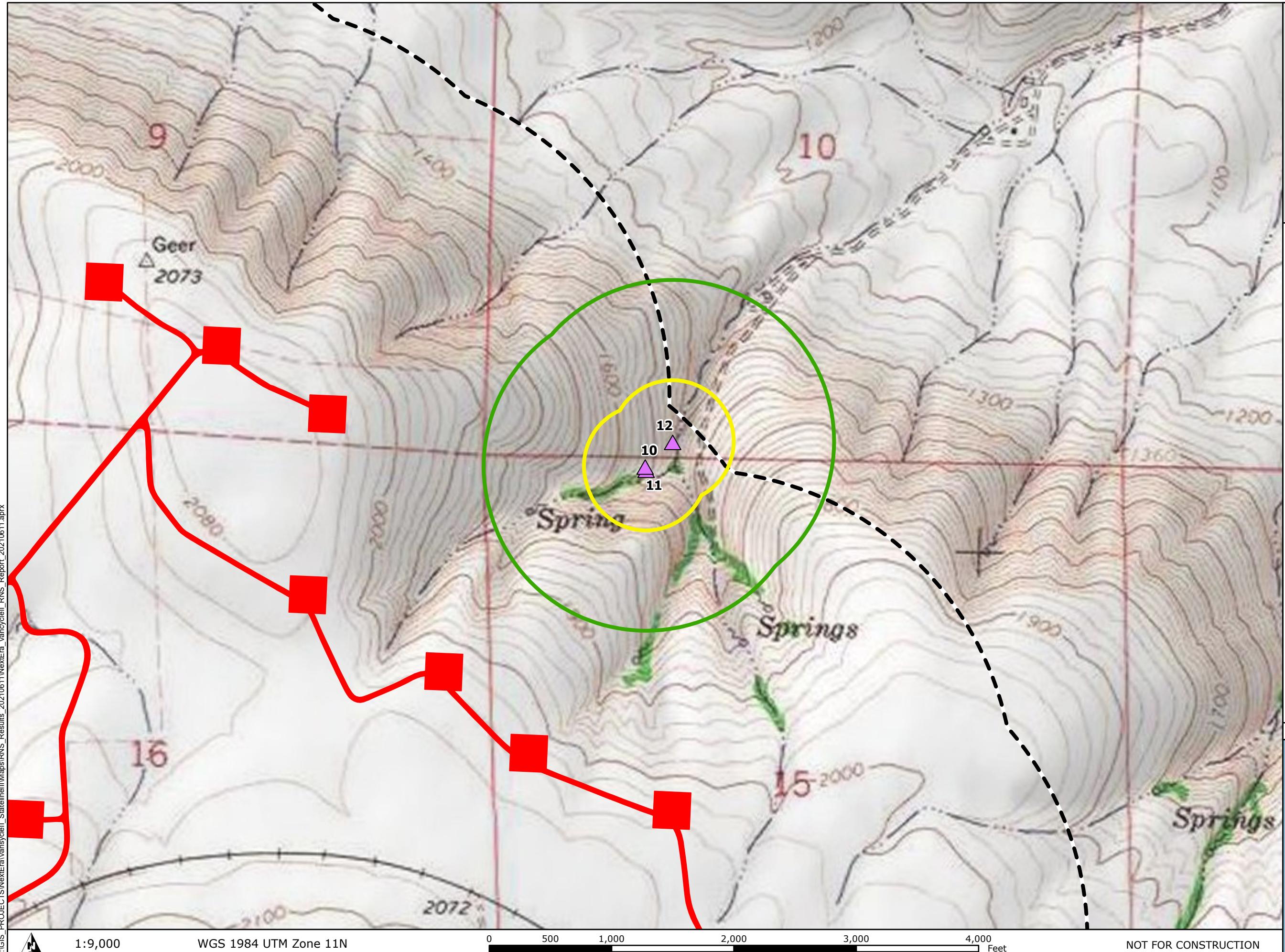
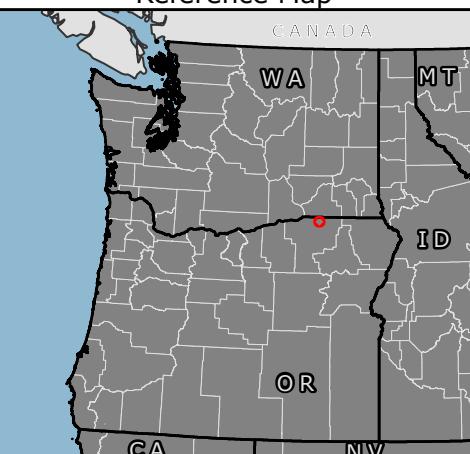
**Figure 2.4  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

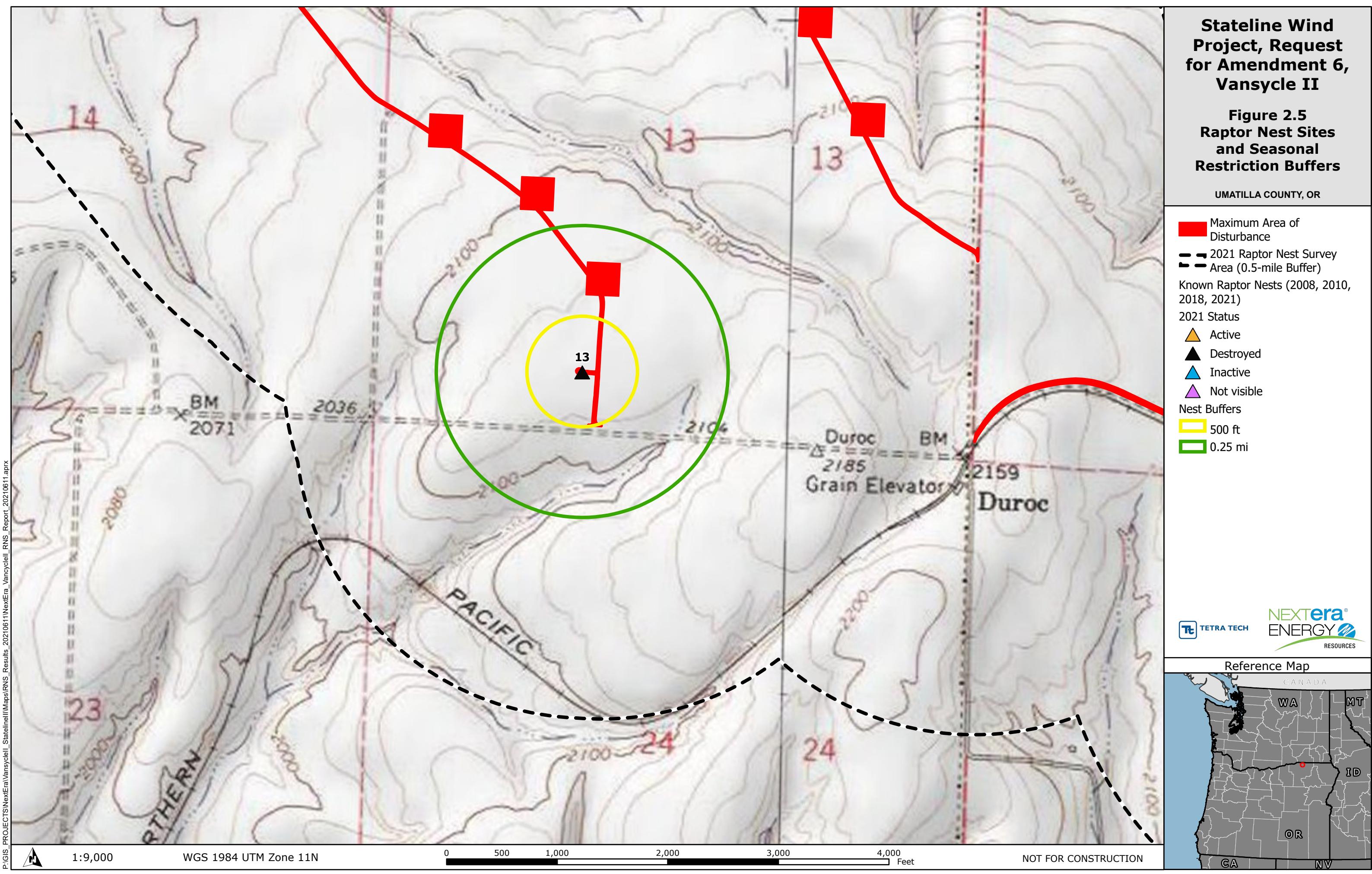
UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
  - ▲ Active
  - ▲ Destroyed
  - ▲ Inactive
  - ▲ Not visible
- Nest Buffers
  - 500 ft
  - 0.25 mi

**NEXTERA<sup>®</sup> ENERGY**  
RESOURCES

Reference Map





**Stateline Wind  
Project, Request  
for Amendment 6,  
Vansycle II**

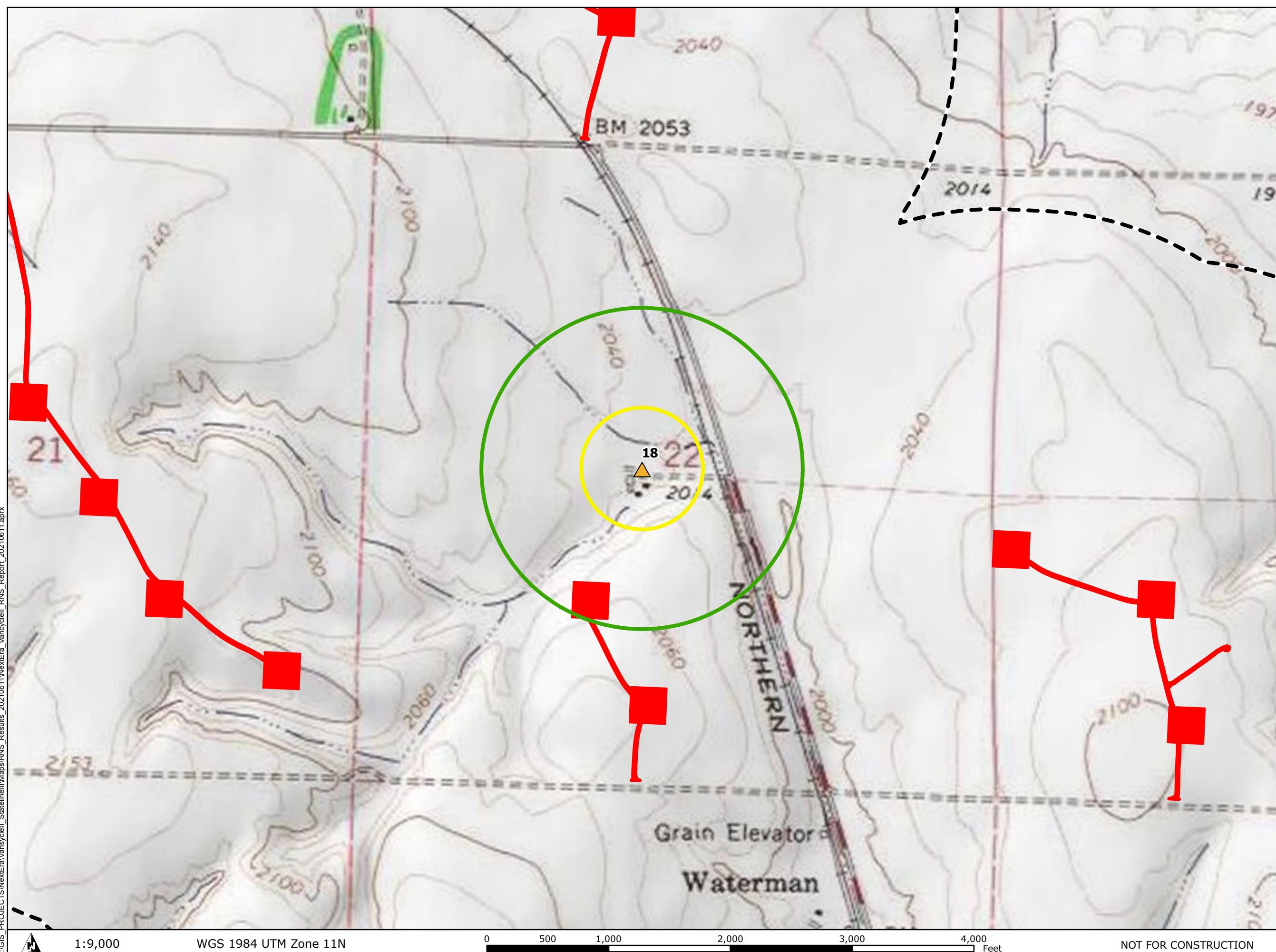
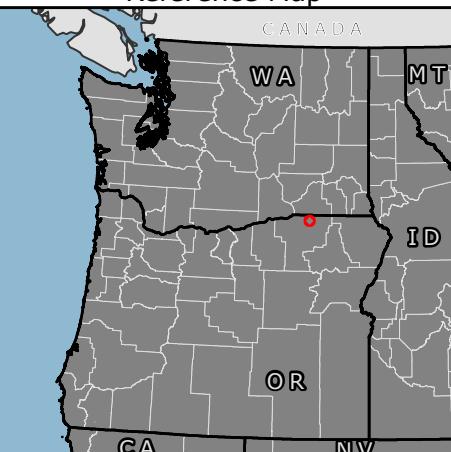
**Figure 2.6  
Raptor Nest Sites  
and Seasonal  
Restriction Buffers**

UMATILLA COUNTY, OR

- Maximum Area of Disturbance
- 2021 Raptor Nest Survey
- Area (0.5-mile Buffer)
- Known Raptor Nests (2008, 2010, 2018, 2021)
- 2021 Status
  - ▲ Active
  - ▲ Destroyed
  - ▲ Inactive
  - ▲ Not visible
- Nest Buffers
  - 500 ft
  - 0.25 mi



Reference Map



**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 7. Rare Plant Survey and Habitat Mapping**



# MEMO

---

**To:** Chris Powers, NEER

**Cc:** Carrie Konkol, Tetra Tech

**From:** Michael Ottenlips, Tetra Tech

**Date:** November 8, 2021

**Subject:** Vansycle II RFA 6 Repower, Pre-Construction Rare Plant Survey and Habitat Mapping

---

## Introduction

This memo describes the methods and results of the rare plants survey and habitat mapping conducted on July 7, 2021, within the existing operational Vansycle II Wind Project (Facility). Construction for repowering the Facility may require temporary widening of access roads and construction pads around wind turbines to accommodate large cranes that will be used to replace turbine blades, the addition of a battery storage facility, and disturbance resulting from a temporary laydown area.

The focus of the survey was the state threatened species and federal species of concern, Laurent's milkvetch (*Astragalus collinus* var. *laurentii*), and confirmation of previous habitat mapping efforts in areas with proposed disturbance.

Rare plant surveys were last conducted for the Facility in 2008 (NWC 2008). Habitat has been mapped for the Facility, with the most recent updates occurring in 2008 in support of Request for Amendment (RFA) 4 (FPL Energy Stateline II, Inc. 2008) and in 2018 in support of RFA 5 (FPL Energy Stateline II, Inc. 2019).

## Methods

In preparation for the field work, Tetra Tech reviewed the 2008 and 2018 habitat mapping for the Facility, as well as aerial photographs to identify potential habitat for Laurent's milkvetch. One approximately 2-acre area identified via aerial imagery appeared to be inconsistent with habitat mapping from 2018 and was flagged for ground confirmation.

The rare plant survey area included areas identified as being temporarily or permanently impacted by RFA6 that were previously mapped (in 2018) as “Conservation Reserve Program or Revegetated,” “Grassland Steppe,” or “Shrub Steppe.” The small area flagged during review of aerial imagery was also included in the survey areas. “Dry Agriculture” and “Developed” vegetation classes were not surveyed.

At each survey area, a photograph and GPS location were taken, previous habitat mapping was confirmed or updated, and a Laurent’s milkvetch survey was performed using the Intuitive Controlled survey method, a standard and commonly accepted survey protocol (USFS and BLM 1998). This method incorporates meandering transects that traverse the survey area and target the full array of major vegetation types, aspects, topographical features, habitats, and substrate types.

Tetra Tech prepared digital field maps with these data and uploaded these maps onto a data collection tablet to assist field staff in habitat mapping and surveying for Laurent’s milkvetch.

The following guidance documents and procedures were reviewed

- Burke Herbarium Image Collection (Burke Museum 2020);
- Oregon Listed Plants by County (ODA 2020);
- Oregon Biodiversity Information Center (ORBIC) 2019 Rare, Threatened and Endangered Species Oregon (ORBIC 2019);
- Oregon Flora Project – Rare Plant Guide (OFP 2011);
- Oregon Flora Project – Oregon Plant Atlas and digitized specimen labels and submitted observations (OFP 2019); and
- OregonFlora online guide to vascular plants of Oregon (OregonFlora 2021)

## Findings

No individuals of Laurent’s milkvetch were observed within the survey areas. The small, approximately 2-acre area along the access road north of Turbines 2 and 3 (flagged during an aerial imagery review) was re-mapped from “Dry Agriculture” (2018) to “Conservation Reserve Program or Revegetated” (**Photo 1**). All other habitat mapping performed in 2018 in the survey areas was confirmed. See the attached figure for results of the updated habitat mapping.

## References

Burke Museum (Burke Museum Herbarium). 2020. Burke Herbarium Image Collection. University of Washington. Seattle, WA. Available online at: <http://biology.burke.washington.edu/herbarium/imagecollection.php>.

FPL Energy Stateline II, Inc. 2008. Final Request for Amendment #4 for the Stateline Wind Project.

FPL Energy Stateline II, Inc. 2019. Final Request for Amendment #5 for the Stateline Wind Project. Prepared by Tetra Tech, Inc. January.

NWC (Northwest Wildlife Consultants). 2008. Technical Memorandum: Stateline 3 Wind Power Facility 2008 Biological Investigations. Prepared for Tetra Tech and FPL Energy. Pendleton, OR.

ODA (Oregon Department of Agriculture). 2020. Oregon Listed Plants by County. Available online at: <https://www.oregon.gov/ODA/programs/PlantConservation/Pages>ListedPlants.aspx>.

ORBIC (Oregon Biodiversity Information Center). 2019. Rare, Threatened and Endangered Species of Oregon. Oregon Biodiversity Information Center, Institute for Natural Resources, Portland State University, Portland, Oregon. 133 pp.

OFP (Oregon Flora Project). 2011. Rare Plant Guide. Oregon Flora Project Plant Atlas. Department of Botany and Plant Pathology, Oregon State University. Corvallis, OR. Available online at: <http://oregonflora.org/rareplants.php>. Accessed June 2020.

OFP. 2019. Oregon Flora Project Plant Atlas. Department of Botany and Plant Pathology, Oregon State University. Corvallis, OR. Available online at: <http://www.oregonflora.org/atlas.php>. Accessed June 2020.

OregonFlora. 2021. OregonFlora Website. Oregon State University, Department of Botany and Plant Pathology. Corvallis, OR. Available online at: <https://oregonflora.org/>. Accessed July 2021.

USFS and BLM (U.S. Forest Service and Bureau of Land Management). 1998. Survey Protocols for Survey and Manage Strategy 2 Vascular Plants. Version 2.0.

# **Figures**

Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 5 Habitat  
Mapping

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Permanent Impacts

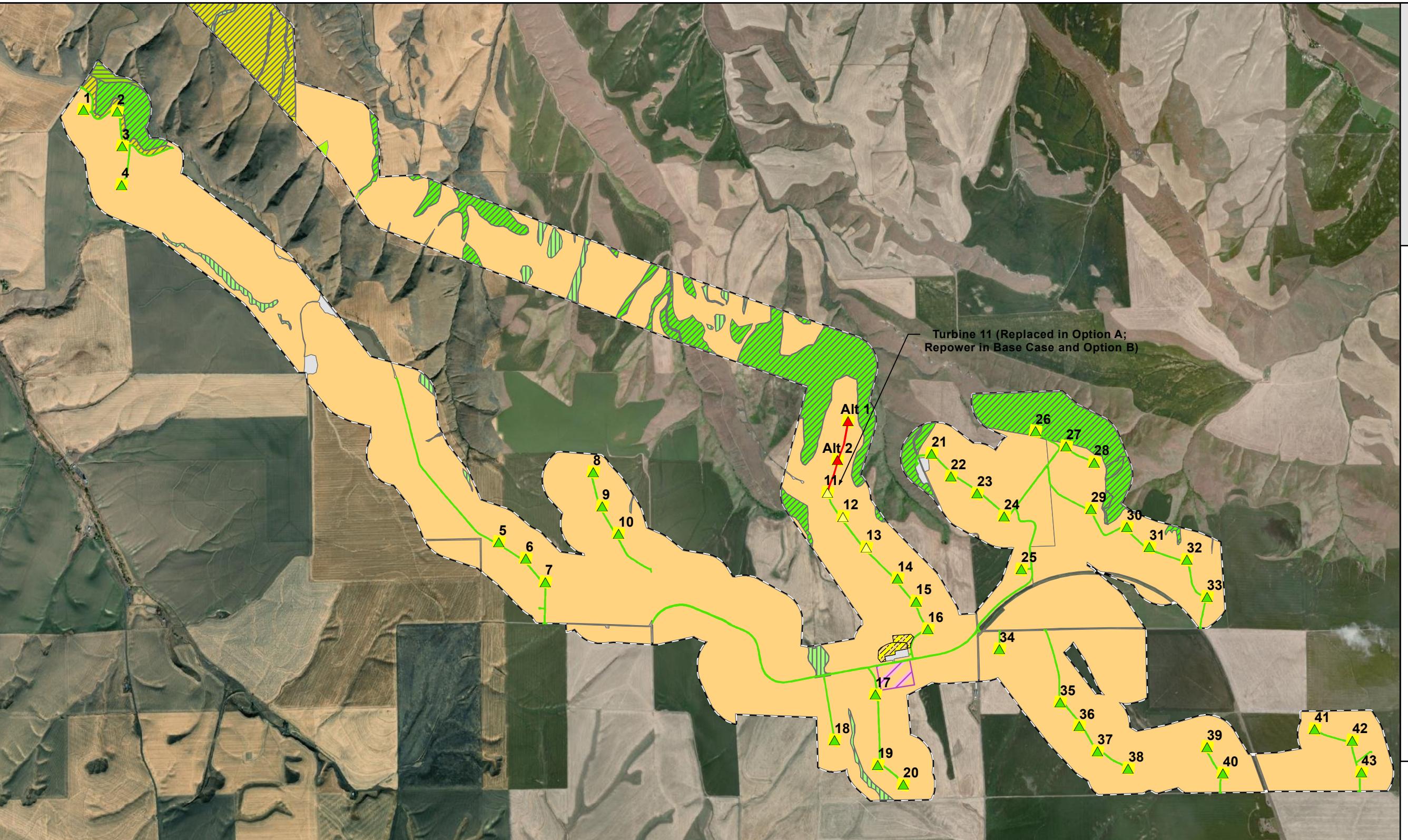
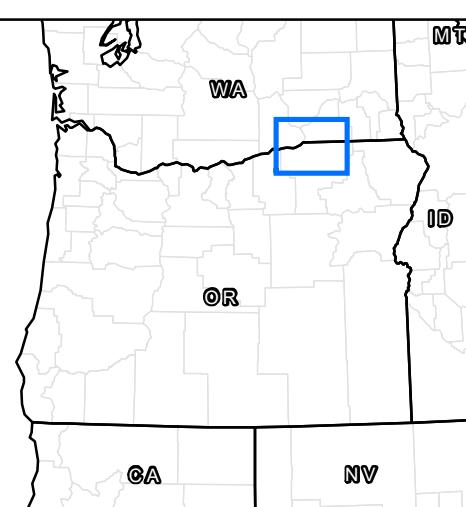
- Additional Turbines - Option B (ALT-1 and ALT-2)
- Replaced Turbines - Option A (11, 12, 13)
- New Road Construction

Proposed Battery Location

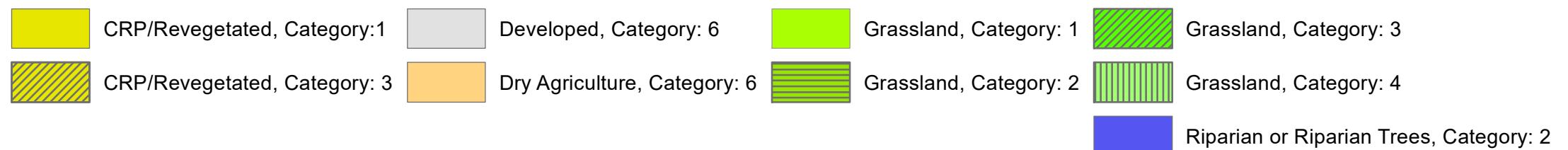
Temporary Impacts

- Rotor Assembly
- Service Road (Widening)
- Laydown
- Existing Turbines (Repower Only)

TETRA TECH



Habitat Mapping



1:38,749 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.5 1 2 3 Miles

# **Photolog**



**Photo 1.** Tall wheatgrass (*Thinopyrum ponticum*) and cheatgrass (*Bromus tectorum*) dominate a 2-acre area north of Turbines 2 and 3 re-classified in 2021 as “Conservation Reserve Program or Revegetated,” a change from the 2018 classification of “Dry Agriculture.”



**Photo 2.** Typical weedy rare plant survey area at the base of Turbine 26. Dominant grasses included bluebunch wheatgrass (*Pseudoroegneria spicata*) and big bluegrass (*Poa ampla*); invasive species included the noxious weed yellow star thistle (*Centaurea solstitialis*) and cheatgrass (*Bromus tectorum*). No Laurent's milkvetch were found at this or any other survey areas potentially impacted by RFA 6.



**Photo 3.** Typical rare plant survey area at the base of Turbine 27. Dominant grasses included bluebunch wheatgrass (*Pseudoroegneria spicata*) and big bluegrass (*Poa ampla*). Hairy vetch (*Vicia villosa*) is a common component of this area. No Laurent's milkvetch were found at this or any other survey areas potentially impacted by RFA 6.

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 8. Cultural Resources Existing Survey Coverage and Resource Locations**

**(Confidential)**

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 9. Historic Properties Inventory**

# **Historic Properties Inventory Report for the**

## **Vansycle II Wind Project**

**Umatilla County, Oregon**

**Prepared for:**



**Prepared by:**



Bothell, Washington  
Project #194-1109-0042  
SHPO Case No:10-1059

**Author:**

**Lara Rooke, MA, RPA**

**November 2021**

## **Abstract**

Tetra Tech, Inc., completed an historic properties inventory for the Vansycle II Wind Facility (Facility) in Umatilla County, Oregon. Four tax parcels were identified that contained historic buildings. Each of these parcels was surveyed from the public right of way to document the buildings and evaluate their significance and eligibility for listing on the National Register of Historic Places (NRHP). None of the buildings that were documented were found to be individually eligible for NRHP listing.

One of the properties that was documented was found to be potentially eligible for NRHP listing under Criterion D. The property located at 46847 Raymond Road has the potential for archaeological resources. Further archaeological survey is necessary to determine the existence and eligibility of this site. There will be no direct or indirect impacts to the site as a result of the Facility. There will be no direct disturbance to the property and also no indirect impacts as the wind turbines in the viewshed will not be repowered. These turbines are part of the Stateline Wind Facility, not the Facility.

There will be no impacts to any of the identified historic sites because of the Facility. No further work is recommended.

This page intentionally left blank.

## Contents

1.0	Introduction.....	1
1.1	Project Description .....	1
1.2	Survey Area.....	1
2.0	Regulatory Context.....	2
2.1	EFSC Site Certificate Application Requirements.....	2
2.2	EFSC General Standards for Siting Facilities .....	3
2.3	NRHP Eligibility Criteria.....	3
3.0	Historic Context.....	5
3.1	Homesteading .....	6
3.2	Agriculture.....	7
3.3	Ranching.....	7
3.4	Umatilla County.....	8
4.0	Methods .....	9
5.0	Results.....	11
5.1	46847 Raymond Road, Helix, Oregon .....	11
5.2	81474 Waterman Road, Athena, Oregon .....	15
5.3	81244 Gerking Flat Road, Athena, Oregon.....	17
5.4	81132 Gerking Flat Road, Athena, Oregon.....	20
6.0	Conclusions .....	21
7.0	Bibliography.....	22

## Tables

Table 1. Desktop Survey Results .....	10
---------------------------------------	----

## Figures

Figure 1. Regional Overview

Figure 2. Analysis Area

Figure 3. Historic Building Locations

Figure 4. Raymond Property Line of Sight

## **Photographs**

Photograph 1. View of the Stateline wind turbines located behind the property. Facing northeast.....	11
Photograph 2. 46847 Raymond Road, north and west elevations of 1951 and 1961 residences. View toward the east.....	12
Photograph 3. 46847 Raymond Road, north and west elevations of 1956 residence. View to southeast.....	13
Photograph 4. Loft Barn. View to the northeast with wind turbines visible.....	13
Photograph 5. View of wind turbines from the property driveway. View to the east.....	16
Photograph 6. 81474 Waterman Road, south and east elevations. View to the northwest with wind turbines visible in background.....	16
Photograph 7. View to the wind turbines from the front elevation. View to the northeast.....	17
Photograph 8. 81244 Gerking Flat Road, East elevation. Facing west.....	18
Photograph 9. 1953 Loft Barn. View to the Northwest.....	18
Photograph 10. North elevation of the residence and the east and north elevations of the 1953 machine shed. View to the west.....	19
Photograph 11. View to the wind turbines from the front elevation. View to the northeast.....	20
Photograph 12. 81132 Gerking Flat Road, Athena. North and east elevations. View to the southwest.....	21

## **Acronyms and Abbreviations**

BLM	Bureau of Land Management
CFR	Code of Federal Regulations
EFSC	Oregon Energy Facility Siting Council
Facility	Vansycle II Wind Project
FPL Stateline	FPL Energy Stateline II, Inc.
FPL Vansycle	FPL Energy Vansycle, LLC
MW	megawatt
NEER	NextEra Energy Resources, LLC
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
RFA	Request for Amendment
SHPO	State Historic Preservation Office
SWP	Stateline Wind Project
Tetra Tech	Tetra Tech, Inc.

## **1.0 Introduction**

This summary report presents the methods and results for the 2021 historic property inventory conducted by Tetra Tech, Inc. (Tetra Tech) for the repowering of the existing Vansycle II Wind Facility (Facility), part of the Stateline Wind Project (SWP). The Project is located approximately 20 miles west of Milton-Freewater in Umatilla County, Oregon (Figure 1; figures are at the back of this report).

The purpose of this survey, conducted in November 2021, was two-fold. First to document the presence of historic properties within the analysis area and within the viewshed that was designated by the State Historic Preservation Office (SHPO) as a one-mile buffer surrounding the analysis area. Second, the survey was to identify any significant potential impacts to such resources that would result from the construction, operation, and retirement of the proposed Facility.

### **1.1 Project Description**

SWP consists of three wind farm developments (phases), all of which are wind farms operating under site certificates granted by the Oregon Energy Facility Siting Council (EFSC): Stateline 1, Stateline 2, and Vansycle II.<sup>1</sup> Per the Final Order on Amendment #4, SWP is divided into two separate parts (Stateline 1 & 2 and Stateline 3) with separate Facility site boundaries. The Certificate Holder for Stateline 1 and 2 is FPL Energy Vansycle, LLC (FPL Vansycle), and the Certificate Holder for Vansycle II is FPL Energy Stateline II, Inc. (FPL Stateline), both of which are wholly-owned subsidiaries of NextEra Energy Resources, LLC (NEER).

FPL Stateline (the Certificate Holder) submitted a Request for Amendment (RFA) 6 in July 2021 to amend the approved turbine specifications, megawatt (MW) output, number of turbines, and associated development improvements in consideration of repowering of the Facility and to add 50 MW of battery storage. In May 2019, RFA 5 was approved to allow dimensional changes to the approved turbine dimensions to allow for existing turbine towers to be upgraded/repowered to current technology by replacing the nacelles, hubs, rotors and turbine blades and associated temporary construction impacts<sup>2</sup>. However, since RFA 5's approval, technology has changed and the components planned to be used for the repowering are no longer available. Therefore, RFA 6 proposed changes that allowed for repowering flexibility, which included repowering all existing turbines (Base Case) to updated technology (similar to what was approved in RFA 5) with a blade to tip height of up to 499 feet and the potential to add two turbines to the Facility.

### **1.2 Survey Area**

The analysis area for RFA 6 includes the area that could be temporarily disturbed during repowering. It occupies portions of Umatilla County including Township 6 North/Range 32 East,

---

<sup>1</sup> Stateline 3 was renamed as the Vansycle II Wind Project as a result of Request for Amendment 5 (RFA 5).

<sup>2</sup> Increasing the maximum blade tip height from 416 to 440 feet, rotor diameter from 305 to 354 feet; and decreasing minimum aboveground blade tip clearance from 110 to 85 feet.

Sections 13 and 14; Township 6 North/Range 33 East, Sections 17-21, 27-28, 33-34; Township 5 North/Range 33 East, Sections 1-3, 7, 10-14, 24; and Township 5 North/Range 34 East, Sections 8, 15-23. The historic property inventory survey area includes the analysis area and a one-mile buffer surrounding that area (Figure 2). The survey was conducted from public rights-of-way.

Pre-construction surveys conducted for the Facility's original application to EFSC and construction include Steinmetz (2003 and 2009). Both were limited to examination of the Facility footprint and did not address the surrounding viewshed.

## **2.0 Regulatory Context**

NEER is a private renewable energy developer proposing this Facility, and permitting agencies are limited to Oregon state. Development of the Facility site must comply with the EFSC siting standards.

### **2.1 EFSC Site Certificate Application Requirements**

Oregon Administrative Rules (OAR) 345-021-0010(1)(s) stipulates that FPL Stateline must include information in Exhibit S of the Application for Site Certificate or confidential submissions of the following information regarding historic, cultural, and archaeological resources:

- 1) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the NRHP (see below).
- 2) For private lands, archaeological objects, as defined in Oregon Revised Statutes (ORS) 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.
- 3) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area. (Note, the Facility does not involve public lands.)
- 4) The significant potential impacts, if any, of the construction, operation, and retirement of the proposed Facility on the resources described above and a plan for protection of those resources that includes at least the following:
  - a. A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the SHPO or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying, and assessing the significance of resources listed above.
  - b. The results of the above discovery measures, together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.
  - c. A list of measures to prevent destruction of the resources identified during surveys, inventories, and subsurface testing or discovered during construction.
- 5) The applicant's proposed monitoring program, if any, for impacts to historic, cultural, and archaeological resources during construction and operation of the proposed facility.

## 2.2 EFSC General Standards for Siting Facilities

Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090(1) stipulates FPL Stateline must demonstrate that the construction and operation of the Facility, taking into account mitigation, are not likely to result in significant adverse impacts to the following:

- OAR 345-021-0010(1)(s)(A): Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the NRHP;
- OAR 345-021-0010(1)(s)(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); and
- OAR 345-021-0010(1)(s)(C): For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c). (Note, the Facility does not involve public lands.)

## 2.3 NRHP Eligibility Criteria

Since the Facility is limited to EFSC regulatory review, it is necessary to evaluate identified resources for eligibility to be listed on a local, state, or federal historic register.

Preliminary recommendations for eligibility are based on the following criteria codified in Title 36 Code of Federal Regulations (CFR) Part 60.4 and specified below.

*The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:*

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or*
- B. that are associated with the lives of persons significant in the past; or*
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possess high artistic value, or that represent a significant or distinguishable entity whose components may lack individual distinction; or*
- D. that have yielded, or are likely to yield, information important in prehistory or history....*

*Ordinarily, cemeteries, birthplaces, or graves of historical figures; property owned by religious institutions or used for religious purposes; structures that have been removed from their original location; reconstructed historic buildings; properties that are primarily commemorative in nature; and properties that have achieved significance within the last 50 years shall not be considered eligible for the National Register. However, such properties will*

*qualify if they are integral parts of districts that do meet the criteria, or if they fall within the following categories:*

- *a religious property deriving primary significance from architectural or artistic distinction or historical importance; or*
- *a building or structure removed from its original location but which is significant primarily for its architecture, or which is the surviving structure most importantly associated with an historic person or event; or*
- *a birthplace or grave of an historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or*
- *a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or*
- *a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan and when no building or structure with the same association has survived; or*
- *a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or*
- *a property achieving significance within the past 50 years if it is of exceptional importance.*

In addition to the four criteria of eligibility, architectural resources must meet some, if not all, of the following seven aspects of integrity as defined by the National Park Service (NPS 1997):

- **Location:** Location is the place where the historic property was constructed or the place where the historic event took place.
- **Design:** Design is the composition of elements that constitute the form, plan, space, structure, and style of a property.
- **Setting:** Setting is the physical environment of a historic property that illustrates the character of the place. Integrity of setting remains when the surroundings have not been subjected to radical change.
- **Materials:** Materials are the physical elements combined in a particular pattern or configuration to form the features during a period in the past. Integrity of materials determines whether or not an authentic historic resource still exists.
- **Workmanship:** Workmanship is the physical evidence of the craft of a particular culture or people during any given period of history. Workmanship is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principals of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principals.

- **Feeling:** Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time.
- **Association:** Association is the direct link between a property and the event or person for which the property is significant.

The retention of the aspects of setting, location, design, workmanship, materials, and feeling combine to convey the integrity of association.

### 3.0 Historic Context

Although horses and trade goods preceded the arrival of Euro-Americans in the inland Northwest by decades via upriver trade, members of the Corps of Discovery (1805–1806) were the first Caucasians to navigate the Columbia River (Walker and Sprague 1998:141). Lewis and Clark recorded 174 Sahaptin lodges along the Columbia River as they passed downstream in October 1805 (Hunn and French 1998:391). Journals recount camping near village sites and trading for dogs, wood, and a bread made from *Lomatium* (Moulton 1983:317). When word of the resources found by Lewis and Clark spread, trappers and traders quickly organized to exploit them.

The fur trade followed closely on the heels of the early explorers, with the Hudson's Bay Company and Northwest Fur Companies vying for territory and the pelts of otter and beaver (Walker and Sprague 1998:142). Native people were drawn into the fur craze, trading beaver pelts for domestic goods, weapons, and ammunition (Stern 1998:412). Competition between Britain and America was intense: the Hudson's Bay Company's tactic to counter American competition in the Snake River country was to trap-out entire drainages, creating a "fur desert" (Wishart 1979). By the mid-1840s, the beaver had been extirpated from much of its range in the Plateau, Snake River Plain, and Great Basin.

The first Euro-Americans known to have traveled overland near the survey area were members of the Pacific Fur Company, led by W.P. Hunt, newly appointed agent of Astoria, in 1812 (Evans 1991:17). Hunt's route to Astoria followed the Snake River and then traversed the Blue Mountains and the Umatilla River to reach the Columbia River. Members of the Astoria party under Robert Stuart retraced the route in 1812 on a return trip to St. Louis. Stuart was one of the first Euro-Americans to record detailed accounts of the landscapes of eastern Oregon and western Idaho. The route traveled by the "Astorians" was soon followed by other expeditions, including trapping brigades led by Alexander Mackenzie, Peter Skene Ogden, and Nathaniel Wyeth. Wyeth would ultimately return to southeastern Idaho to establish a trading post at present-day Fort Hall, a strategic stop on the Oregon Trail, near present-day Pocatello. In 1821, the Pacific Fur Company was bought out by the Hudson's Bay Company, whose monopoly on the interior fur trade would last for another 15 years.

In 1811, the Hudson's Bay Company took over Fort Nez Perce and changed its name to Fort Walla Walla in 1821. Native Americans would bring in furs from the interior to trade for European-made goods. These furs would be shipped down the Columbia to Fort Vancouver. Fort Walla Walla was closed in 1855 due to conflicts between settlers and Native Americans (History Link 2014). This was toward the end of the intense fur trade in the Pacific Northwest. The number of fur-bearing

animals was in steep decline, and a change in fashion made the pelts less profitable (Northwest Power and Conservation Council 2020).

The influx of Euro-American settlers, combined with the arrival of the horse and firearms, led to widespread conflicts as traditional Native American cultural lands and hunting territories were encroached upon by mobile aborigines and newly introduced trappers and traders (Murphy and Murphy 1986:302).

The first wave of migration to Oregon came during the 1830s as Protestant missionaries moved west to convert native populations (Hutchison and Jones 1993). Other explorers established other routes that were eventually incorporated into the well-known Oregon Trail. The first true emigrant wagon train, the Bidwell-Bartleson party, arrived at Soda Springs in southeastern Idaho in 1841. The party split there, one group turning south down the Bear River toward California, and the remaining 34 emigrants continuing west to the Columbia River and western Oregon. The Oregon group was guided by James Sinclair of the Hudson's Bay Company (Bagley 2010; Hill 1986:10-11). The following years saw increased emigration and numerous emigrant routes cross Oregon in all directions.

The Facility is about 40 miles east of the confluence of the Columbia and Snake rivers. While early emigrant trails followed these two rivers, no primary emigration route passed through the survey area. The early emigration trail system did bring the first European settlers to the larger region.

### **3.1 Homesteading**

The Preemption Act of 1841, the Homestead Act of 1862, Desert Land Act of 1877, and the Stock Raising Homestead Act of 1916 encouraged Euro-American settlers to settle in what later became Umatilla County. Many of the early settlers were ranchers as much of the land at the time was unsuitable for agriculture. The Preemption Act to allow squatters to preemptively stake claims for up to 160 acres of land. The land could be purchased from the government for as little as \$1.25 an acre before it was offered up for public sale provided the claimant resided on the land for 14 months.

The Homestead Act provided a 160-acre tract of land for \$1.25 an acre to any U.S. citizen, or intended citizen, who had never borne arms against the U.S. government. Before the land could be claimed, the claimant was required to have lived on the land for 5 years, improved the land by building a dwelling at least 12 feet by 14 feet in size, and began cultivating crops. After the 5-year period, the homesteader could file for a deed of title by submitting proof of residency and completion of the required improvements to a local land office.

The Desert Land Act was signed into legislation to encourage and promote the economic development of the arid and semi-arid public lands of the western states (BLM 2009). It offered 640-acre tracts of land to a married couple who would pay \$1.25 an acre and promise to develop and irrigate the land within 3 years. A single man would receive 320 acres for the same price. The conditions required that the applicant be a naturalized citizen, head of household, or male over the age of 21 who had never been an enemy or aided an enemy of the U.S. At the time the claim was

placed, the claimant was required to pay 25 cents per acre, with the remaining balance due within two years. Unlike the Homestead Act, the Desert Land Act did not include a requirement to construct a residence, but it did stipulate that title could only be transferred after 3 years if irrigation development was completed within that time.

The Stock Raising Homestead Act provided settlers with 640 acres of public land for ranching purposes. Unlike the Homestead Act of 1862 or the Enlarged Homestead Act of 1909, these parcels of land were divided into surface and subsurface land rights, resulting in what later became known as split estates. This act allowed applicants ownership of surface resources for ranching and homesteading, but also allowed the federal government to retain the right to extract subsurface resources for the good of the country. The subsurface rights, also known as mineral rights, became the foundation of future oil and gas law in the U.S. (BLM 2006).

### 3.2 Agriculture

The introduction of irrigation canals and dam construction in the early 1900s precipitated further economic development and settlement. Soon after, native vegetation began being replaced by irrigated croplands of grains, sugar beets, potatoes, and alfalfa, which resulted in a disruption of the natural hydrologic system (Franzen 1981:228). Federal construction, canal, and dam projects through the Civilian Conservation Corps and Work Projects Administration during the Great Depression of the 1930s enabled the unemployed to find work and helped establish larger-scale irrigation in the agricultural regions of Idaho and Oregon. Many of the currently in-use canal headgates were constructed during this time.

Based partly on the mass development of agricultural lands during the early twentieth century and as a response to the environmental disturbances caused by overgrazing and deforestation, public lands in western Idaho and eastern Oregon were set aside. This resulted in land management by federal agencies such as the Bureau of Land Management (BLM) and U.S. Forest Service (Franzen 1981:229). Though the economy has been affected by periodic droughts and depressions throughout the twentieth century, to date, western Idaho and eastern Oregon retain their agricultural economy; wheat fields, sugar beet plants, potato processing plants, dairy farms, wood product processing plants, and feedlots continue to contribute to regional development.

### 3.3 Ranching

The ranching industry provided several basic staples for historic European populations: beef, milk, fat, and cheese. Cattle and horses also provided the necessary power for plowing agricultural fields, pulling wagons and other machinery, and leather for clothing and other purposes. The numerous watercourses and prominent grasslands of eastern Oregon, in particular bluebunch wheatgrass (*Pseudoroegneria spicata*), Idaho fescue (*Festuca idahoensis*), and Sandberg bluegrass (*Poa secunda*), provided the necessary feed and water for the cattle, sheep, and horses. Horses were initially brought to the region from the Southwest by Native Americans in the late seventeenth/early eighteenth centuries and continued to freely range throughout the region for many years. Ranchers and farmers also found domesticated horses necessary for conducting daily activities. Cattle were introduced to

the region by Spaniards who brought a few head from the Hawaiian Islands in the late eighteenth century (Galbraith and Anderson 1971:7). Later, numerous herds of cattle and sheep were driven north from California and west from the Great Plains into the Willamette Valley and east of the Cascades. By 1825, cattle had begun to play a role of increased importance in the early economy of the Pacific Northwest. By the mid-nineteenth century, the Cattle Baron had arrived in the Northwest. The practice of long distance cattle drives ended in the 1880s with the creation of the Northern Pacific Railroad, the Utah and Northern Railroad, and the Oregon Short Line, which allowed for shipping cattle by rail (Galbraith and Anderson 1971:7-9; Tucker 1940:57-58).

Cattle and sheep ranching expanded into and developed more fully in eastern Oregon during the 1850s and 1860s when miners began to move into the Columbia Basin. The horses necessary to conduct ranching activities of course followed. For the most part, ranchers sold their meat and milk locally. However, this changed in the 1870s when they were forced to look beyond the Pacific Northwest to compensate for the overpopulated industry in the region. In addition to supplying areas to the east with basic goods, the cattle were also used to create base herds in the Rocky Mountains (Galbraith and Anderson 1971:8-9).

Open range ranching with an established headquarters was the accepted practice until the 1890s, when ranchers, after a series of severe winters, finally accepted that shelter and feed during the winter were necessary for a successful operation. Deteriorating range conditions as a result of overgrazing and increased interest in private landownership by homesteaders put an end to the practice of open range once and for all. Following enactment of the Homestead Act, land began to be fenced off and property lines delineated, preventing free movement of herds and established sheep and cattle drive routes. More importantly, the grasslands were turned into agricultural fields or taken over by invasive species or insect plagues. Railroads too took over their own share of land. All of this reduced the available rangeland and cattlemen began to fight each other for land. In particular, cattle ranchers versus sheep herders led to the range wars of the 1900s, which were mostly contained to south-central Oregon (Galbraith and Anderson 1971:10-11; Tucker 1940:58).

Laws and regulations regarding ranching were enacted to quell the pervasive and complex disagreements between cattlemen and sheepherders, as well as to begin rehabilitation and conservation of rangelands. Following the Stock Raising Homestead Act, the Taylor Grazing Act was passed in 1934 as an additional effort to rehabilitate and develop rangelands. Administered by what is now the BLM, the Taylor Grazing Act regulated occupancy and use of grazing lands by preserving the land and its resources from destruction, providing orderly use of the lands, and authorizing environmental studies to better understand the necessities of rehabilitation (Galbraith and Anderson 1971:12).

### 3.4 Umatilla County

Umatilla County is situated in the extreme northeastern portion of Oregon state. It is bound by the Columbia River in the north which allows for irrigation and productive agricultural communities. Stock raising, wool production, and farming are the leading industries of the county. The project area is located in the towns of Athena and Helix. Both are small agricultural towns with populations

of 1,126 and 184, respectively. The main economy in Helix and Athena is dryland farming. Crops such as wheat, canola, and peas are predominant.

Helix, which was originally to be named Oxford, was instead named after part of the ear since one of its residents had just had ear surgery. Positioned to the northwest of Athena, both towns are connected by a spur of the Oregon & Washington Territory railroad. Situated on the route of the Oregon Trail, Athena has always been well connected to the surrounding communities. In addition to the Oregon Trail, Athena was connected to Walla Walla and Umatilla by a 1960s wagon road and the 1883 Oregon Railway Navigation Company railroad (Doyle 2021). Originally named Bellview by its first settler and stagecoach operator, Darwin Richards, it was later renamed Centerville as it was halfway between Pendleton and Walla Walla. However, that name did not stick and by 1889 it became Athena after the Greek goddess of counsel, wars, arts, and industries (Doyle 2021). Today, the town of Athena is the largest wheat shipping location in the US, in proportion to population.

One of the largest industries operating in Athena and Helix are Wind energy facilities. From ship sails to windmills, wind power has been harnessed since ancient times. American colonists used wind mills to grind wheat and corn, to pump water, to cut wood at sawmills, and generate electricity (Umatilla County 2021). Similar to old fashioned windmills, today's wind turbines use blades to collect the winds kinetic energy. In addition to the Vansycle wind turbine facility, several others are located in the vicinity including Combine Hills and Stateline.

## **4.0 Methods**

Historic sites or built environment resources are defined by the National Historic Preservation Act as resources consisting of standing structures 50 years of age or older. Tetra Tech conducted a desktop survey identifying buildings on aerial photographs of the project area and reviewed the SHPO Historic Sites database. Each building was reviewed using the online County Assessors site to determine the age of the buildings. As part of the desktop survey, historic maps were also reviewed to identify previous and current ownership of each parcel. These included the General Land Office cadastral maps, the 1914 Ogle map, and the 1934 Metsker map.

Following the desktop survey, Tetra Tech conducted a field survey of the identified tax parcels with historic buildings. All fieldwork was conducted from the public right-of-way. The resources were photographed and recorded on photograph logs. Documentation included photographic documentation of at least one elevation, a physical description, and a concise statement of significance relative to the building's eligibility for listing on the NRHP (36 CFR Part 60.4).

Once the desktop review was completed, a total of four tax parcels were identified as containing historic buildings (Table 1). To evaluate the significance of each building for listing on the NRHP, a comprehensive study of each property was completed. Archival sources such as historic maps and historic newspapers were reviewed online to develop a chain of title for the property and identify whether the properties are associated with an important individual or event in local, state, or national history. In addition, local libraries were visited.

## Historic Properties Inventory Report

**Table 1. Desktop Survey Results**

<b>Tax Parcel</b>	<b>Address</b>	<b>Year Built</b>	<b>Building Type</b>	<b>Land Owner</b>	<b>Historic Land Owners</b>
5N33000010400	46847 Raymond Road, Helix OR 97835	1900 (demolished and rebuilt in 1950)	One-story residence	Raymond and Son Inc.	Addie Raymond and R. Raymond (Ogle 1914 map) R. Raymond (Metsker 1934 Map)
		1953	General purpose (GP) building		
		1900 (demolished and rebuilt in 1950)	One-story residence		
		1956 (remodeled 1960)	GP building		
		1961	One-story		
		1961	Loft barn		
		1975	Hay cover		
		1990	Metal component building		
		1997	Metal component building		
5N34270000100	81474 Waterman Road, Athena OR, 97816	1963 (remodeled 1982)	One-story residence	Darla Clark	Raymond, Wagner, Waterman (Ogle 1914 map)
		1963	GP building		
		1963	Machine shed		
		1992	2 machine sheds		
		2005	GP shed		
		1992	Lean-to		
		1920 (remodeled 1956)	One-story residence		
5N34000004800	81244 Gerking Flat Road, Athena, OR 97816	1953	Loft barn	Sunny Cove Ranches Inc.	J. Walker, A. McIntyre (Ogle 1914 map) Walker, Parris (Metsker 1934 map)
		1953	Machine shed		
		1915 (remodeled 1951)	One-story residence		
5N34000004700	81132 Gerking Flat Road, Athena, OR 97816	1950	Truck scales	Froese, Paul W.	McDonald, McIntyre, Wagner (Ogle 1914 map) McIntyre (Metsker 1934 map)
		1950	Fuel tank		
		1994	4 grain bins		
		1950	Tool shed		
		1960	Barn		

## 5.0 Results

The desktop survey identified a total of four tax parcels containing historic buildings in Oregon (Figure 3). Each of the buildings that was visible from the public right-of-way is described below.

### 5.1 46847 Raymond Road, Helix, Oregon

The property located at 46847 Raymond Road contains two residences constructed in 1950s and one residence constructed in 1961, as well as two 1990s multi-component buildings, a 1975 hay cover, 1961 loft barn, and two 1950s general purpose buildings. The property sits at the end of Raymond Road, surrounded by wheat fields and pastureland. Several wind turbines are present to the north and south, within the viewshed of the primary residence. They are located behind the residence and not visible from the front elevation of the property (Photograph 1). These wind turbines will not be repowered as they are part of the Stateline Wind Facility.



**Photograph 1. View of the Stateline wind turbines located behind the property. Facing northeast.**

The primary residence is an L-shaped, one-story vernacular building with a cross-gabled roof. Situated in front on the main west façade is a newer 1961 bungalow-style residence (Photograph 2). These buildings abut on the west elevation and appear to be joined internally. Newspaper reports indicate that an older 1900s residence was torn down and rebuilt in 1951 (*East Oregonian* 2018). The current 1951 section of the conjoined building features a variety of vinyl-framed windows including sliding, double-hung, and fixed-framed picture windows. The main residence is

clad with plaster and features brick on the lower portion of the structure. The composition-shingled roof has slightly projecting eaves with wood soffits. The 1961 portion of the residence is clad with common bond brick and has a hipped roof with projecting eaves. It features vinyl-framed windows that include large picture windows and paired double-hung windows. The main entrance is located on the north elevation of the 1961 residence.



**Photograph 2. 46847 Raymond Road, north and west elevations of 1951 and 1961 residences. View toward the east.**

A third residence, situated to the south of the main residence, was constructed in 1956 (Photograph 3). It is a one-story rectangular plan structure with a daylight basement and side-gabled, composition-shingled roof. It is clad with vertical plank siding and features common bond brick in the lower portions. The main façade is located on the north elevation. It features a shed roof porch and single door with two lights. The windows are vinyl-framed and include double-hung, slider, and casement-style windows. A second entrance is located on the basement level of the west façade. It features a one-light door with two side transoms. The building has a poured concrete foundation.

The outbuildings that were visible were primarily modern with the exception of a 1961 loft barn (Photograph 4). The barn is a broken gable style structure with a hay loft in the upper gable. The structure is clad with horizontal wood planks and has a double wide entry on the south elevation.



**Photograph 3. 46847 Raymond Road, north and west elevations of 1956 residence. View to southeast.**



**Photograph 4. Loft Barn. View to the northeast with wind turbines visible.**

### Statement of Significance

According to the *East Oregonian*, the original 1900s farmhouse was torn down and a new modern house was built in the 1950s (*East Oregonian* 2018). In 1961, a new residence was constructed that abuts the main residence. This has altered the massing of the 1950s residence and affected the integrity of this property. Several of the historic features have been upgraded. All of the windows have been replaced with vinyl frames and the cladding has also been changed with brick added to both of the 1950s buildings to match the brick cladding of the 1960s structure. The individual buildings no longer retain integrity of workmanship, design, feeling, or materials. The individual buildings are not the work of a master and do not embody the significant characteristics of a type, period, or method of construction; therefore, it is recommended that the individual buildings, and the property as a whole, are not eligible under NRHP Criterion C.

Despite research conducted at the Milton-Freewater Library, the County Assessor's office, and review of historic newspapers, no evidence could be found to suggest that the property is associated with an important individual in local, state, or national history. The property has been owned by the Raymond family since it was first purchased. Therefore, it is recommended as not eligible under NHRP Criterion B.

The site's physical characteristics are aboveground and visible, and there is no direct evidence to suggest additional features may be located below ground. Since it is likely that the original 1900 residence had an outhouse and well, the site holds some potential to yield information significant toward our understanding of the past; therefore, it is recommended as potentially eligible under NRHP Criterion D. However, further archaeological research would be needed to determine eligibility. Impacts to potential archaeological resources would not be significant as there are no direct impacts to the property as a result of this Facility. There are also no indirect impacts as the wind turbines in the viewshed will not be repowered. These turbines are part of the Stateline wind facility, not the Facility.

Review of historic maps and documents indicates that the property has been ranched by the Raymond family since at least 1878 (*East Oregonian* 2018) and early maps show a building located on the property in 1914 (Ogle 1914). The original 160-acre farm was patented to Raphael Raymond in 1893 as a homestead entry (General Land Office 2021). According to the *East Oregonian*, Raphael "Fred" Raymond was married to Adaline May Marshal and they had 5 children (*East Oregonian* 2018). In 1878, Raymond bought and homesteaded 160 acres of railroad land north of Helix where the Raymond Ranch is currently located (*East Oregonian* 2018). After purchasing another 160 acres of adjoining land, he then traded a team of horses, some meat, and a few dollars to purchase even more land (*East Oregonian* 2018). By 1905, he had accumulated 1,000 acres of tillable land and 500 acres of pasture land. Fred Raymond and his neighbor bought the first pull-combine in the Helix vicinity and used 36 horses to pull the combine across the steep landscape (*East Oregonian* 2018). In 1906, Raymond retired and the family moved to Pendleton, Oregon where their youngest child Rachael "Ruff" Raymond was born. The farm was leased until 1934 when Ruff Raymond took over and began farming (*East Oregonian* 2018). Tyson Raymond is the current property owner.

The property represents a late nineteenth/early twentieth century agricultural settlement that has been farmed by the same family for five generations. Raphael Raymond, the original landowner, was one of many early homesteaders associated with the development of agriculture and ranching in the Helix area. As such, the property is potentially eligible for listing on the NRHP under Criterion A.

Although the site appears to meet NRHP eligibility under Criterion A, it does not retain sufficient integrity nor do the historic buildings convey their historic origin because the original homestead was torn down. The current buildings are unrelated to the early agriculture, homesteading, and ranching of the property. While the farm retains integrity of location (it has not been moved), and association (the farm is still in operation and owned by the same family), it does not retain integrity of design, materials, workmanship, setting, or feeling. The original farmhouse was torn down and the remaining buildings date to the 1950s and later. Modifications in the 1950s and 60s to the original farmstead have impacted the farm's ability to convey the setting and feeling of its historic past. As a result of the loss of integrity, the site is recommended as not eligible for listing on the NRHP under criterion A.

### 5.2 81474 Waterman Road, Athena, Oregon

The property located at 81474 Waterman Road includes a one-story vernacular residence that was constructed in 1963 and remodeled in 1982, a 1963 general purpose building, a 1963 machine shed, and several modern outbuildings. The property sits on the west side of Waterman Road, surrounded by wheat fields and pastureland. Several trees surround the property obscuring it from the roadway. Wind turbines are present to the north, east, and south, within the viewshed of the primary residence (Photograph 5).



**Photograph 5. View of wind turbines from the property driveway. View to the east.**

The primary residence is a one-story, L-shaped structure with a metal hipped roof (Photograph 6). It is clad with horizontal clapboard siding and features double paired and three light vinyl-framed sliders. The main entrance is on the west elevation, inset under a projecting porch. The 1963 outbuilding was not visible from the driveway of the property. The main residence has been altered slightly since its original construction; it features new windows, roof and siding. It also has a new addition on the south elevation that alters the massing of the original structure. The main residence no longer retains integrity of workmanship, materials, feeling, and design.



**Photograph 6. 81474 Waterman Road, south and east elevations. View to the northwest with wind turbines visible in background.**

**Statement of Significance**

Review of historic maps and documents indicates that the property is owned today by the Clark family; however, the original property owners were the Waterman family (Ogle 1914). The main residence lacks distinction, being of common construction. The individual buildings are not the work of a master and do not embody the significant characteristics of a type, period, or method of construction (Criterion C). The property has been owned by a series of different individuals. Despite research conducted at the Milton-Freewater Library, the County Assessor's office, and review of historic newspapers, no evidence could be found to suggest that the property is associated with an important individual or event in local, state, or national history (Criteria A and B). In addition, it does not have potential to yield information toward our understanding of history or prehistory (Criterion D). Therefore, neither the property as a whole, nor the buildings individually, appear to be eligible for inclusion on the NRHP.

### 5.3 81244 Gerking Flat Road, Athena, Oregon

The property located at 81244 Gerking Flat Road includes a 1920 residence, a 1953 loft barn, and a 1953 and 1982 machine shed. The property sits on the east side of Gerking Flat Road, surrounded by wheat fields. Several wind turbines are present to the east and west, within the viewshed of the primary residence (Photograph 7).



**Photograph 7. View to the wind turbines from the front elevation. View to the northeast.**

The primary residence is an L-shaped plan two-story structure with a cross gabled, composition-shingled roof and a poured concrete foundation (Photograph 8). It has a small addition on the west and north elevations. It features single and paired double-hung, wood-frame windows, a picture window with an upper awning, and sliding, metal-framed, windows on the addition. The front entry sits under an inset porch on the east elevation. The building is clad with wood clapboard and features an external brick chimney on the south elevation and an external cinderblock chimney on the north elevation. A low-hipped roof structure is located on the north elevation. It is attached to the house through a small shell addition. This appears to be a cellar. The residence is vacant and in disrepair however it still retains most of the seven aspects of integrity required for NRHP eligibility.

The 1953 loft barn is situated to the north of the residence (Photograph 9). It features a metal saltbox roof and horizontal wood plank cladding. It has two double-wide openings on the south elevation and two single doors on the east elevation. There are five open wood-framed windows along the east elevation with three additional openings under the rafters. There is a hay door on the east elevation located under the gable of the roof.



**Photograph 8. 81244 Gerking Flat Road, East elevation. Facing west.**



**Photograph 9. 1953 Loft Barn. View to the Northwest.**

The 1953 machine shed is a rectangular structure with a low-pitched side-gabled, metal roof (Photograph 10). It has one single door opening on the east elevation, and two vinyl-framed sliding windows. On the north elevation, there are five open entries for machine storage and a double overhung sliding door on the east side of the elevation.



**Photograph 10. North elevation of the residence and the east and north elevations of the 1953 machine shed. View to the west.**

### Statement of Significance

Review of historic maps and county assessors' documents indicates that the property is currently owned by Sunny Cove Ranches, Inc.; however, the original property owners were the Walker family (Ogle 1914). The main residence lacks distinction; it is a common vernacular construction and does not possess high artistic values. The individual buildings are not the work of a master and do not embody the significant characteristics of a type, period, or method of construction (Criterion C). The property has been owned by a series of different individuals. Despite research conducted at the Milton-Freewater Library, the County Assessor's office, and review of historic newspapers, no evidence could be found to suggest that the property is associated with an important individual or event in local, state, or national history (Criteria A and B). In addition, it does not have potential to yield information toward our understanding of history or prehistory (Criterion D). Therefore, neither the property, nor the buildings individually, appear to be eligible for inclusion on the NRHP.

## 5.4 81132 Gerking Flat Road, Athena, Oregon

The property located at 81132 Gerking Flat Road includes a 1915 one-story residence, 1950s truck scales and fuel tank (not visible from the public right-of-way), and 1994 grain bins. The property sits on the east side of Gerking Road, surrounded by wheat fields. Several wind turbines are present to the northeast and northwest, within the viewshed of the primary residence (Photograph 11).



**Photograph 11. View to the wind turbines from the front elevation. View to the northeast.**

The primary residence was remodeled in 1951 (Photograph 12). It is an L-shaped plan bungalow-style structure with a composition-shingled, hipped roof with slightly projecting, boxed eaves and a poured concrete foundation. It is clad with wood, horizontal clapboard siding and features three-light, wood-framed, picture windows. To the north of the residence is a stand-alone, hipped roof garage, clad in the same siding as the residence. A single, plain wood door sits under the projecting roofline on the east elevation. Despite the remodeling, the building still retains most of the seven aspects of integrity required for NRHP eligibility.



**Photograph 12. 81132 Gerking Flat Road, Athena. North and east elevations. View to the southwest.**

### **Statement of Significance**

Review of historic maps and county assessors' documents indicates that the property is currently owned by the Froese family; however, the original property owners were the McIntyre family (Ogle 1914). The main residence lacks distinction; it is a common bungalow-style construction and does not possess high artistic values. The residence is not the work of a master and does not embody the significant characteristics of a type, period, or method of construction (Criterion C). Despite research conducted at the Milton-Freewater Library, the County Assessor's office, and review of historic newspapers, no evidence could be found to suggest that the property is associated with an important individual or event in local, state, or national history (Criteria A and B). In addition, it does not have potential to yield information toward our understanding of history or prehistory (Criterion D). Therefore, neither the property as a whole, nor the building individually, appear to be eligible for inclusion on the NRHP.

## **6.0 Conclusions**

A desktop review of historic buildings was completed for the Facility. During this review, four tax parcels within one mile of the RFA 6 analysis area were identified that contained historic buildings. Each of these parcels was surveyed from the public right-of-way to document the buildings and evaluate their significance and eligibility for listing on the NRHP. One of the properties that was documented was found to be potentially eligible for NRHP listing under Criterion D. The property

located at 46847 Raymond Road has the potential for archaeological resources. Further archaeological survey is necessary to determine the existence and eligibility of this site.

Nevertheless, there will be no direct or indirect impacts to the site as a result of the Facility. The wind turbines are not located on the property, and visual impacts will not affect the potential for archaeological resources to contribute data toward our understanding of the past. The wind turbines in the properties viewshed will not be repowered. These turbines are part of the Stateline Wind facility, not the Facility (Figure 3 and 4).

There will be no impacts to any of the identified historic sites because of the Facility.

## **7.0 Bibliography**

Bagley, Will

2010 So Rugged and Mountainous – Blazing the Trails to Oregon and California, 1812 – 1848. University Oklahoma Press, Norman, Oklahoma.

BLM (U.S. Bureau of Land Management)

2009 Desert Land Entries. Electronic document, [http://www.blm.gov/wo/st/en/prog/more/lands/desert\\_land\\_entries.html](http://www.blm.gov/wo/st/en/prog/more/lands/desert_land_entries.html), accessed April 2012.

2006 Split Estate: Private Surface? Public Mineral: What Does It Mean to You? Electronic document, [http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS\\_REALTY\\_AND\\_RESOURCE\\_PROTECTION\\_/bmpls.Par.41235.File.dat/Split%20Estate%20Presentation%202006.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS_REALTY_AND_RESOURCE_PROTECTION_/bmpls.Par.41235.File.dat/Split%20Estate%20Presentation%202006.pdf), accessed July 2012.

Doyle, Susan Badger

2021 Athena. Electronic document <https://www.oregonencyclopedia.org/articles/athena/#.YYsNEWDMKUk>, accessed November 8, 2021.

*East Oregonian*

2018 Raymond farm built on foundation of strong family ties. Electronic document [https://www.eastoregonian.com/community/raymond-farm-built-on-foundation-of-strong-family-ties/article\\_2b778276-62ae-59e0-8433-52b742850ca5.htmlv](https://www.eastoregonian.com/community/raymond-farm-built-on-foundation-of-strong-family-ties/article_2b778276-62ae-59e0-8433-52b742850ca5.htmlv), accessed November 7, 2021.

Evans, John W.

1991 *Powerful Rocky: The Blue Mountains and the Oregon Trail*. Eastern Oregon State College, La Grande.

Franzen, John G.

1981 Southeastern Idaho Cultural Resources Overview, Burley and Idaho Falls Districts: Final Report R-2196. Commonwealth Associates, Jackson, Michigan. Submitted to U.S. Bureau of Land Management.

Galbraith, William A., and E. William Anderson

1971 Grazing History of the Northwest. *Journal of Range Management*, 24(1):6-12.

General Land Office

2021 General Land Office records. Bureau of Land Management. Electronic document  
<https://glorecords.blm.gov/details/patent/default.aspx?accession=ORLGAA%20087829&docClass=SER&sid=ihxv2hnz.rq3>, accessed November 7, 2021.

Hill, William E.

1986 *The California Trail Yesterday and Today*. Pruett Publishing Company, Boulder, Colorado.

History Link

2014 Elementary Level: Fort Walla Walla. Electronic document,  
<https://www.historylink.org/File/10955>, accessed September 1, 2020.

Hunn, Eugene S., and David H. French

1998 Western Columbia River Sahaptins. In *Plateau*, edited by Deward E. Walker, Jr., pp. 378-394, Volume 12 of the *Handbook of North American Indians*, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Hutchison, Daniel J., and Larry R. Jones (eds.)

1993 Emigrant Trails of Southern Idaho. *Adventures in the Past—Idaho Cultural Resource Series Number 1*. Idaho Bureau of Land Management and Idaho State Historical Society, Boise, Idaho.

Metsker, Thos. C.

1934 *Metsker's Atlas of Umatilla County, Oregon*. Tacoma.

Moulton, Gary E. (editor)

1983 The Journals of the Lewis and Clark Expedition. 11 vols. through 1997. University of Nebraska Press, Lincoln and London.

Murphy, Robert F., and Yolanda Murphy

1986 Northern Shoshone and Bannock. In *Great Basin*, edited by Warren L. d'Azevedo, Vol. 11 of the *Handbook of North American Indians*, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Northwest Power and Conservation Council

2020 Fur Trade. Electronic document, <https://www.nwcouncil.org/>, accessed September 1, 2020.

Ogle, Geo. A. & Co.

1914 *Standard Atlas of Umatilla County, Oregon*. Chicago.

Steinmetz, Shawn

2003 *Stateline Wind Project Phase 2a and 3 Cultural Resource Inventory, Walla Walla County, Washington and Umatilla County, Oregon*. Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to FPL Energy, Inc., Juno Beach, Florida. CTUIR Contract #344-02. Oregon SHPO report #18475.

2009 *Archaeological Investigation for the Stateline 3 Wind Project, Umatilla County, Oregon and Walla Walla County, Washington*. Confederated Tribes of the Umatilla Indian Reservation, Pendleton, Oregon. Submitted to Tetra Tech, Inc., Rancho Cordova, California. CTUIR Contract #330-08. Oregon SHPO report #22471.

Stern, Theodore

1998 Cayuse, Umatilla, and Walla Walla. In *Plateau*, edited by Deward E. Walker, Jr., pp. 395-419, Volume 12 of the *Handbook of North American Indians*, W.C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Tucker, Gerald J.

1940 History of the Northern Blue Mountains. Mimeographed Report. Pendleton, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Region, Umatilla National Forest. Electronic document, <http://www.fs.fed.us/r6/uma/publications/history/Umatilla16.pdf>, accessed November 27, 2012.

Umatilla County

2021 Wind Energy. A brief history on Wind Energy. Electronic document, [Wind Energy - Umatilla County](#), Accessed November 11, 2021.

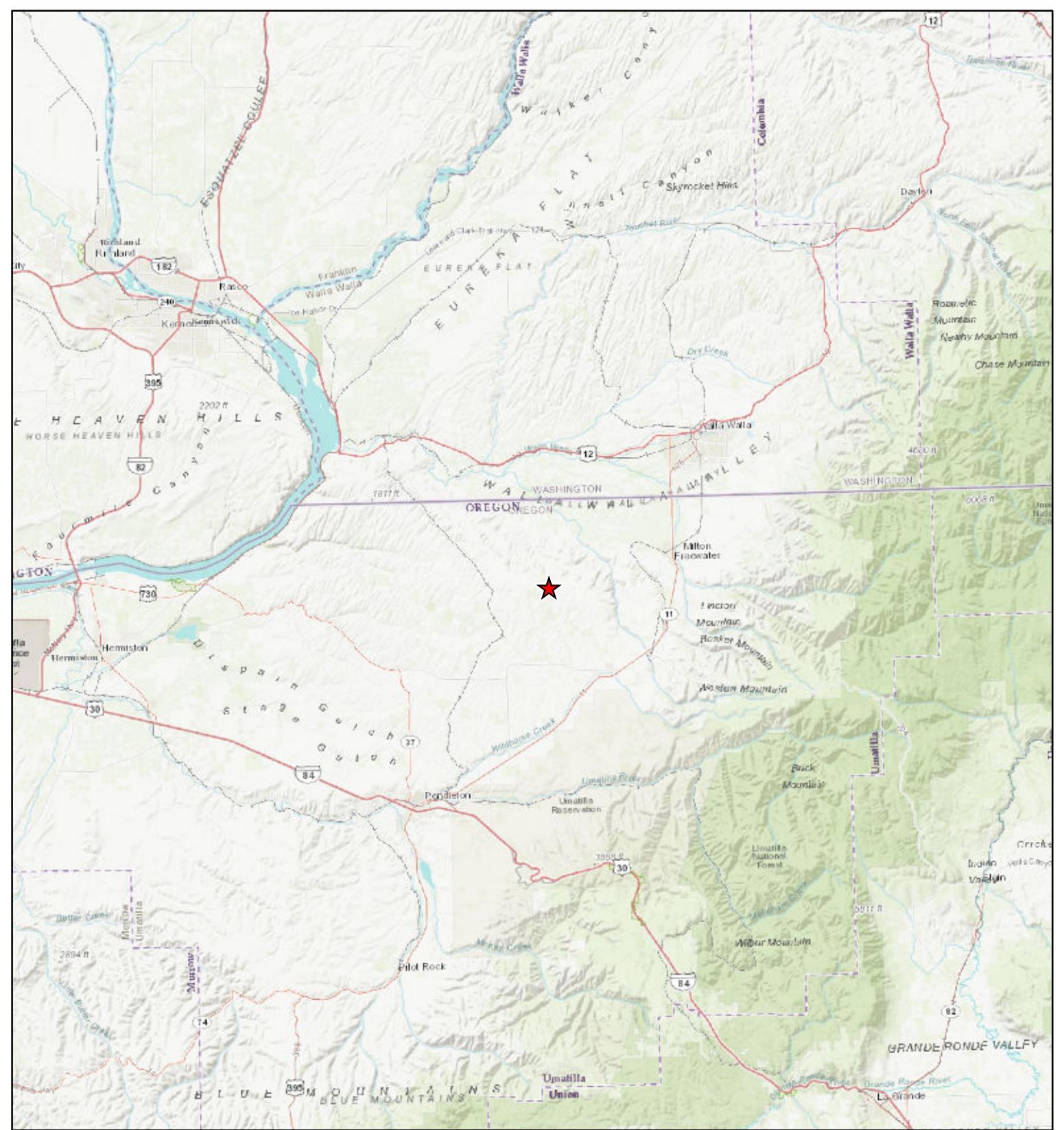
Walker, Deward E., Jr., and Roderick Sprague

1998 History Until 1846. In *Plateau*, edited by Deward E. Walker, Jr., pp.138-148, Volume 12 of the *Handbook of North American Indians*, W. C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

Wishart, David J.

1979 *The Fur Trade of the American West, 1807-1840*. University of Nebraska Press, Lincoln.

## **Figures**



1:633,600 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 2.5 5 10 Miles

NOT FOR CONSTRUCTION

## Stateline Wind Project Request for Amendment 6

### Vansycle II

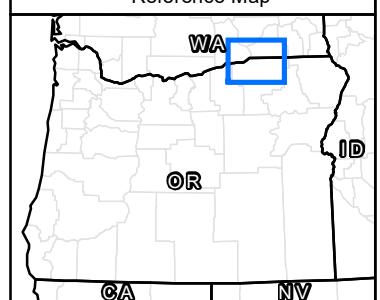
Figure 1  
Regional Overview

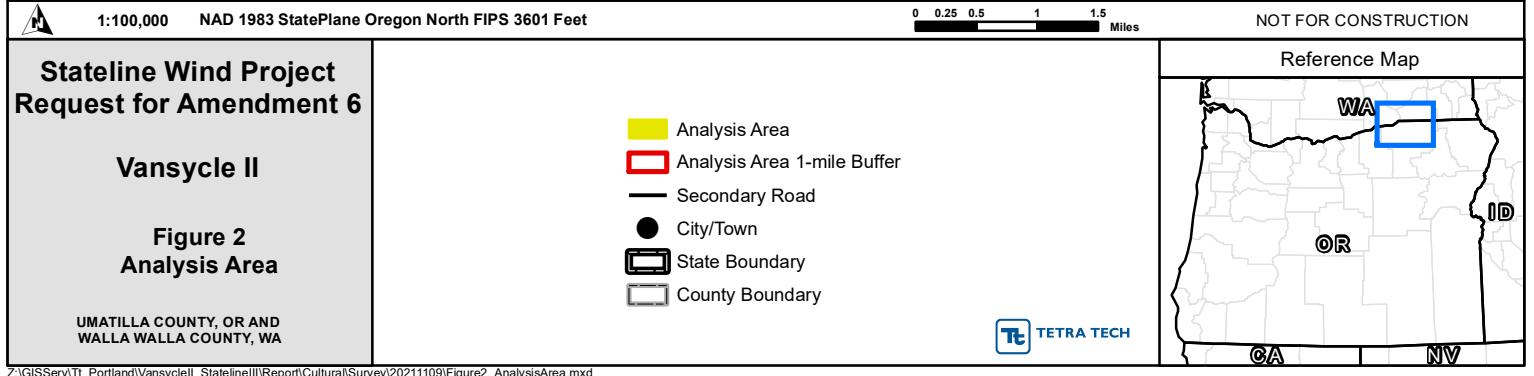
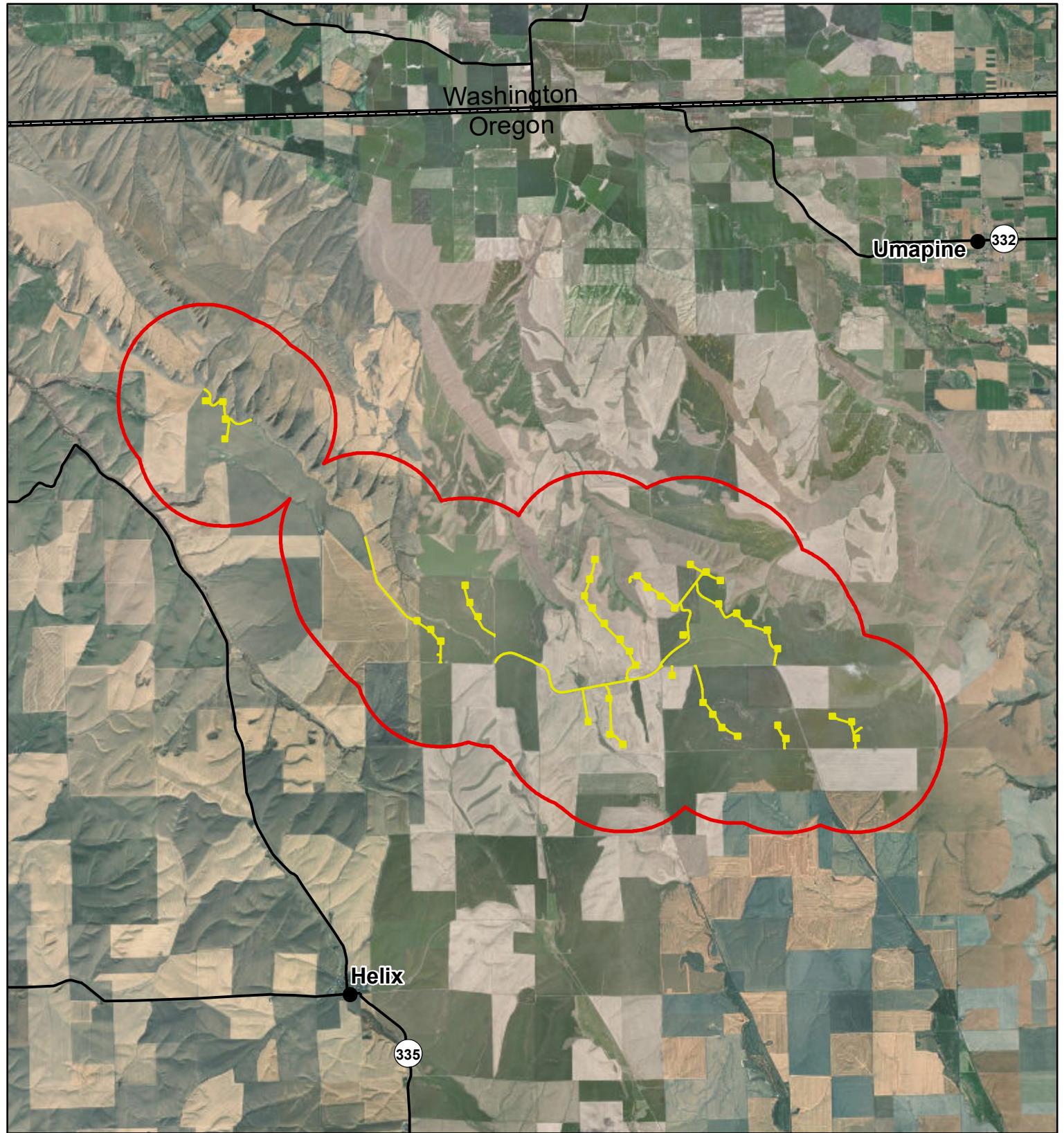
UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

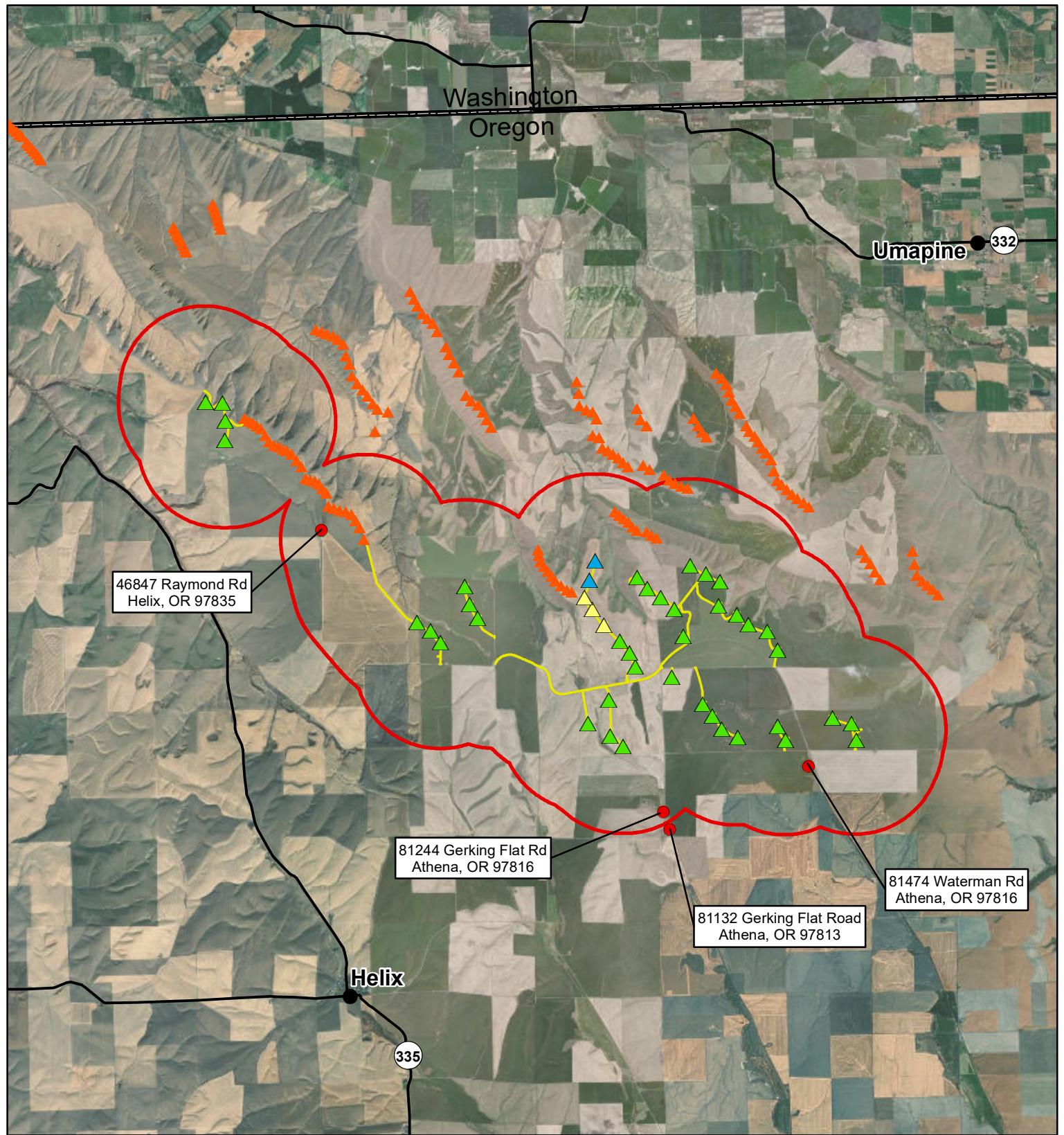
★ Analysis Area

TETRA TECH

Reference Map







1:100,000 NAD 1983 StatePlane Oregon North FIPS 3601 Feet

0 0.25 0.5 1 1.5 Miles

NOT FOR CONSTRUCTION

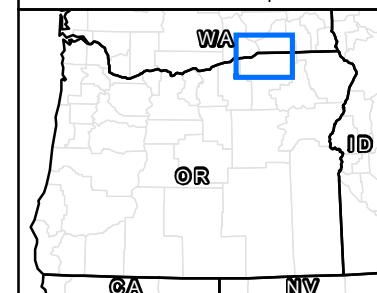
**Stateline Wind Project  
Request for Amendment 6**

**Vansycle II**  
**Figure 3**  
**Historic Building  
Locations**

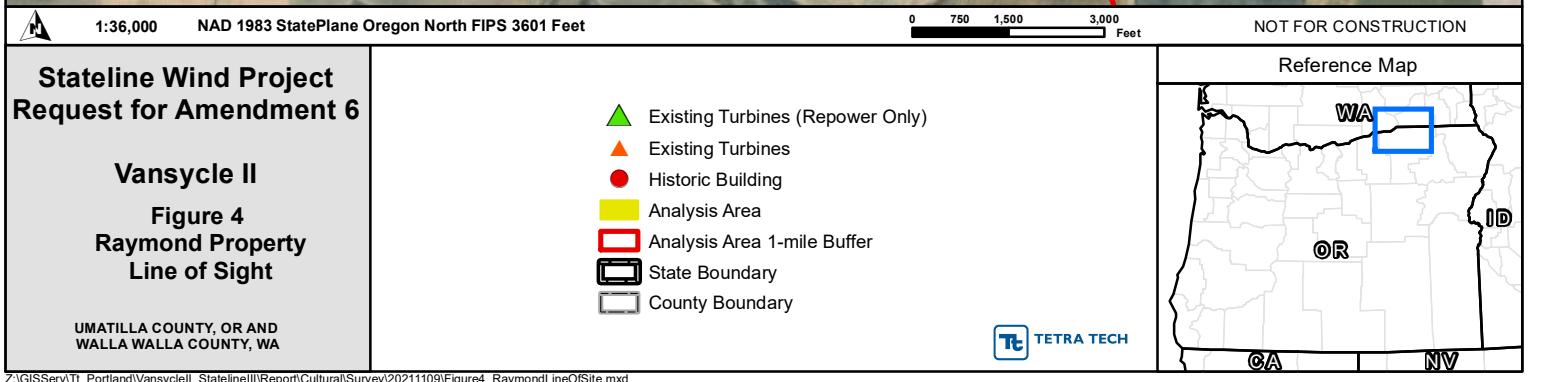
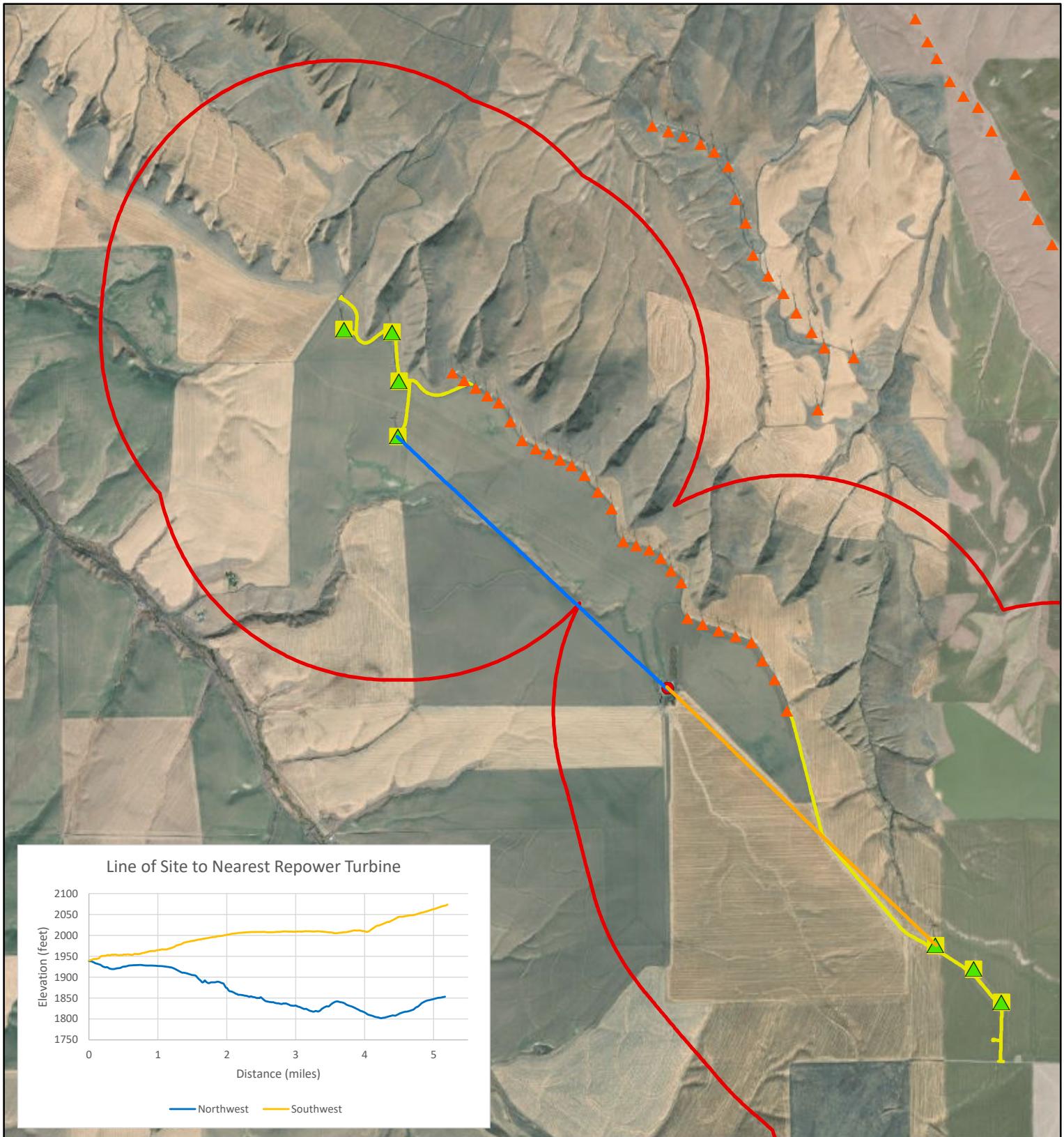
UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower Only)
- ▲ Replaced Turbines - Option A (11, 12, 13)
- ▲ Alternate Turbines (Alt 1, Alt 2)
- ▲ Existing Turbines
- Historic Building
- Analysis Area
- Analysis Area 1-mile Buffer
- Secondary Road
- City/Town

Reference Map



TETRA TECH



**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 10. Unanticipated Discovery Protocol**

# Updated Unanticipated Discovery Plan for the Stateline Wind Project

**September 2021**

---

The Stateline Wind Project (SWP) consists of three wind farm developments (phases) in Umatilla County, all of which are operational wind farms: Stateline 1, Stateline 2, and Vansycle II<sup>1</sup>. Per the Final Order on Amendment #4, SWP is divided into two separate parts (Stateline 1 & 2 and Stateline 3) with separate Facility Site Boundaries. The Certificate Holder for Stateline 1 and 2 is FPL Energy Vansycle, LLC (FPL Vansycle), and the Certificate Holder for Vansycle II is FPL Energy Stateline II, Inc. (FPL Stateline), both of which are wholly-owned subsidiaries of NextEra Energy Resources, LLC.

FPL Stateline (the Certificate Holder) submitted a Request for Amendment (RFA) 6 in July 2021, to amend the approved turbine specifications, megawatt (MW) output, number of turbines and associated development improvements in consideration of repowering of the Vansycle II Wind Project and to add 50 MW of battery storage (proposed changes). In May 2019, RFA 5 approved dimensional changes to the approved turbine dimensions to allow for existing turbine towers to be upgraded/repowered to current technology by replacing the nacelles, hubs, rotors and turbine blades and associated temporary construction impacts<sup>2</sup>. However, since RFA 5's approval, technology has changed and the components planned to be used for the repower are no longer available. Therefore, RFA 6 proposes changes that provide for repowering flexibility to account for various technologies (no changes to the Site Boundary are proposed). To assess for any impacts associated with the proposed changes, the Certificate Holder analyzed several repowering scenarios which include repowering all existing turbines (Base Case) to updated technology (similar to what was approved in RFA 5); but also includes two options for repowering existing turbines with the following exceptions:

- Option A replaces three existing turbines; and
- Option B adds two new turbines and replaces one existing turbine.

To meet obligations under Site Certificate Condition (76), FPL Stateline has prepared this updated unanticipated discovery plan. The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Cultural Resources Protection Program (CRPP) conducted the cultural resources surveys for the Stateline 3 wind project in 2001 and 2008. CTUIR CRPP also conducted cultural resource surveys for earlier phases of the Stateline Wind Project. CTUIR CRPP will be utilized, if available, for responding to unanticipated discoveries of cultural

---

<sup>1</sup> Stateline 3 was renamed to Vansycle II Wind Project as a result of Request for Amendment 5 (RFA 5).

<sup>2</sup> Increasing the maximum blade tip height from 416 to 440 feet, rotor diameter from 305 to 354 feet; and decreasing minimum aboveground blade tip clearance from 110 to 85 feet

resources at SWP. If CTUIR CRPP staff are unavailable, FPL Stateline will select a qualified cultural resources expert and submit this individual's qualifications to the Oregon Department of Energy for approval.

The updated UDP outlines the procedure FPL Stateline will follow in response to any unanticipated discoveries of cultural resources, including archeological resources and possible human remains. It provides direction to FPL Stateline personnel and their consultants as to the proper procedure to follow in the event that unanticipated discoveries are made during construction or operation of SWP. CTUIR CRPP, located in Pendleton, OR, have served as project archeologists for the various iterations of SWP since 2001. They should be consulted if unanticipated discoveries occur.

**Protocol for coordination in the event of an unanticipated discovery:**

Procedure	Protocol
1	In the event of an unanticipated discovery of possible cultural resources, including human remains, all work will stop immediately in the vicinity of the find. A 100-foot (30-meter) buffer should be placed around the discovery wherein ground disturbing work will be stopped. Work may proceed outside of this buffered area unless additional cultural materials are encountered.
2	The area within the buffer shall be secured and protected from additional disturbance with flagging or fencing, or by posting a worker to ensure avoidance. Project personnel shall ensure the discovery is not disturbed and remains confidential, on a need-to-know basis. Project personnel will not speak with the media or discuss the discovery on social media (e.g., Facebook, Twitter, Instagram, etc.), or take photographs of the discovery. The location should be secured, and work will not resume in the area of discovery until all parties involved agree upon a course of action.
3	Project personnel (e.g., environmental monitor, construction personnel, individual who identified the remains) must immediately notify the Construction Manager and Project Archaeologist. The Construction Manager and Project Archaeologist will coordinate subsequent procedures. The Project Archaeologist will notify FPL Stateline, SHPO, and CTUIR Tribal Historic Preservation Officer (THPO) of the discovery. If the discovery consists of human remains, the special procedures listed below beginning at Step 5 for unanticipated discoveries of human remains will be followed.
4	No work may resume until consultation with SHPO has occurred and the Project Archaeologist is able to assess the discovery. The Project Archaeologist, in consultation with SHPO and CTUIR THPO, as appropriate, will determine whether or not the discovery is subject to any of the Oregon Energy Facility Siting Council siting standards and determine an appropriate course of action. Archaeological probing, testing, or other excavation may be required. This will be handled on a case-by-case basis by the Project Archaeologist and FPL Stateline, in consultation with SHPO and CTUIR THPO, as appropriate. All treatment efforts will adhere to the guidelines outlined by the permit for archaeological excavation issued by SHPO to the Project Archaeologist prior to treatment.

<b>Procedure</b>	<b>Protocol</b>
5	As part of the initial notifications described in Step 3 for discoveries of archaeological resources, if possible human remains are encountered, the Oregon State Police and Oregon Legislative Commission on Indian Services will also be notified.
6	If human remains are encountered, do not disturb them in any way. Do not call 911. Secure the location. Project personnel shall ensure the human remains and any associated artifacts and features are not disturbed, are treated with respect and dignity, and ensure confidentiality of the discovery on a need-to-know basis. Project personnel will not speak with the media or discuss the find on social media (e.g., Facebook, Twitter, Instagram, etc.), or take photographs of the remains, burials, or associated artifacts. The location should be secured, and work will not resume in the area of discovery until all parties involved agree upon a course of action.
7	A professional archaeologist may be needed to assess the discovery and they will consult with SHPO and appropriate Tribal Governments to determine an appropriate course of action.
8	Archaeological excavations may be required. This is handled on a case-by-case basis by the professional archaeologist and project manager, in consultation with SHPO and appropriate Tribes.

Contact information for specified individuals is listed at the end of this plan.

**When to stop work:**

Construction work may uncover previously unidentified Native American or Euro-American artifacts. This may occur for a variety of reasons, but may be associated with deeply buried cultural material, access restrictions during project development, or if the area contains impervious surfaces throughout most of the project area which would have prevented standard archaeological site discovery methods.

Work must stop when the following types of artifacts and/or features are encountered:

<b>Native American artifacts may include (but are not limited to):</b>
Flaked stone tools (arrowheads, knives scrapers etc.);
Waste flakes that resulted from the construction of flaked stone tools;
Ground stone tools like mortars and pestles;
Layers (strata) of discolored earth resulting from fire hearths. May be black, red or mottled brown and often contain discolored cracked rocks or dark soil with broken shell;
Human remains;
Stacked rock features;
Structural remains - wooden beams, post holes, etc.;
Trails

<b>Euro-American artifacts may include (but are not limited to):</b>
Glass (from bottles, vessels, windows etc.);
Ceramic (from dinnerware, vessels etc.);
Metal (nails, drink/food cans, tobacco tins, industrial parts etc.);
Building materials (bricks, shingles etc.);
Building remains (foundations, architectural components etc.);
Stacked rock features;
Abandoned trails or roads;
Old wooden posts, pilings, or planks (these may be encountered above or below water);
Old farm equipment may indicate historic resources in the area.
Even what looks to be old garbage could very well be an important archaeological resource.

It is important to remember that historic-era artifacts may be related to Native American activities. The Native American community and practices are not restricted to the pre-contact period and are very present *today*.

#### **Proceeding with Construction:**

1	No construction work is permitted within the buffered area until all appropriate approvals are obtained and the area is released. Construction may proceed only after the proper archaeological inspections have occurred and environmental clearances are obtained from the Project Archaeologist, SHPO, ODOE, and CTUIR THPO, as appropriate.
2	After an unanticipated discovery, some areas may be specified for close monitoring or “no work zones.” Any such areas will be identified by the Project Archaeologist to FPL Stateline, CTUIR THPO, and the Construction Manager. In coordination with SHPO, FPL Stateline will verify these identified areas and be sure that the areas are clearly demarcated in the field, as needed.

#### **Contact Information**

<b>Role</b>	<b>Name</b>	<b>Contact Information</b>
Construction Manager	TBD, FPL Stateline	TBD
Project Archaeologist	TBD, FPL Stateline	TBD
	TBD, Contractor	TBD
Project Managers	TBD, FPL Stateline	TBD
	TBD, Contractor	TBD

	TBD, Other	TBD
ODOE/EFSC	Chase McVeigh-Walker, Siting Analyst	Phone: (503) 934-1582 E-mail: Chase.MCVEIGH-WALKER@energy.oregon.gov
SHPO	John Pouley, State Archaeologist	Phone: (503) 480-9164 E-mail: john.pouley@oregon.gov
CTUIR	Shawn Steinmetz, CRPP Archaeologist	Phone: (541) 429-7963 E-mail: shawnsteinmetz@ctuir.org
	Carey Miller, THPO	Phone: (541) 276-3447 E-mail: careymiller@ctuir.org
Additional contacts for discoveries of human remains:		
Oregon State Police Contact	Chris Allori	Phone: (503) 731-4717 Cell: (503) 708-6461 Dispatch: (503) 731-3030
Oregon Legislative Commission on Indian Services	Danny Santos, Interim Director	Phone: (503) 986-1067 E-mail: LCIS@oregonlegislature.gov

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 11. Public Services: Population, Housing, and Transportation Tables**

**Attachment 11: Public Services: Population, Housing, and Transportation Tables**

This attachment presents updated population, housing, traffic and transportation data relative to the proposed RFA 6 Facility modifications. Tables U-1, U-2, U-3, and U-4 from Exhibit U of RFA 5 were updated to reflect the 2020 census data (U.S. Census Bureau 2020), traffic counts from 2016 to 2020 (ODOT 2016, 2017, 2018, 2019, and 2020a) and 2020 pavement conditions (ODOT 2020b).

**Table U-1. Population by State, County, and Community in the Area of Influence**

Location	Population			2000-2010		2010-2020	
	Census 2000	Census 2010	Census 2020	Absolute Change	Percent Change	Absolute Change	Percent Change
<b>OREGON</b>	<b>3,421,399</b>	<b>3,831,074</b>	<b>4,237,256</b>	<b>409,675</b>	<b>12.0%</b>	<b>406,182</b>	<b>10.6%</b>
Umatilla County	70,548	75,889	80,075	5,341	7.6%	4,186	5.5%
Adams	297	350	389	53	17.8%	39	11.1%
Athena	1,221	1,126	1,209	-95	-7.8%	83	7.4%
Echo	650	699	632	49	7.5%	-67	-9.6%
Helix	183	184	194	1	0.5%	10	5.4%
Hermiston	13,154	16,745	19,354	3,591	27.3%	2,609	15.6%
Milton-Freewater	6,470	7,050	7,151	580	9.0%	101	1.4%
Pendleton	16,354	16,612	17,107	258	1.6%	495	3.0%
Pilot Rock	1,532	1,502	1,328	-30	-2.0%	-174	-11.6%
Stanfield	1,979	2,043	2,144	64	3.2%	101	4.9%
Weston	717	667	706	-50	-7.0%	39	5.8%
<b>WASHINGTON</b>	<b>5,894,143</b>	<b>6,724,540</b>	<b>7,705,281</b>	<b>830,397</b>	<b>14.1%</b>	<b>980,741</b>	<b>14.6%</b>
Walla Walla County	55,180	58,781	62,584	3,601	6.5%	3,803	6.5%
College Place	7,818	8,765	9,902	947	12.1%	1,137	13.0%
Prescott	314	318	372	4	1.3%	54	17.0%
Walla Walla	29,686	31,731	34,060	2,045	6.9%	2,329	7.3%
<b>Benton County</b>	<b>142,457</b>	<b>175,177</b>	<b>206,873</b>	<b>32,720</b>	<b>23.0%</b>	<b>31,696</b>	<b>18.1%</b>
Richland	38,708	48,058	60,560	9,350	24.2%	12,502	26.0%
Kennewick	54,693	73,917	83,921	19,224	35.1%	10,004	13.5%
<b>Franklin County</b>	<b>49,347</b>	<b>78,163</b>	<b>96,749</b>	<b>28,816</b>	<b>58.4%</b>	<b>18,586</b>	<b>23.8%</b>
Pasco	32,066	59,781	77,108	27,715	86.4%	17,327	29.0%

Sources: U.S. Census Bureau 2010; U.S. Census Bureau 2020

1. It should be noted that while Touchet, Washington is within the public services Analysis Area and it is a census designated place, it does not have a consistent record of census data, and is therefore not included in this or other tables to support the public services analysis.

**Table U-2. Housing Supply in Counties and Communities within the Area of Influence**

<b>Location</b>	<b>Total Housing Units</b>		<b>Average Annual Growth Rate</b>	<b>Vacancy Rate</b>
	<b>2010</b>	<b>2020</b>	<b>2010-2020</b>	<b>2020</b>
OREGON	1,675,562	1,813,747	0.8%	7.8%
<b>Umatilla</b>	<b>29,693</b>	<b>31,098</b>	<b>0.5%</b>	<b>8.8%</b>
Adams	141	166	1.6%	4.8%
Athena	484	548	1.2%	5.5%
Echo	256	277	0.8%	8.7%
Helix	68	77	1.3%	22.1%
Hermiston	6,373	6,962	0.9%	4.4%
Milton-Freewater	2,742	2,724	-0.07%	7.3%
Pendleton	6,800	6,938	0.2%	7.7%
Pilot Rock	649	620	-0.5%	7.7%
Stanfield	735	800	0.9%	3.5%
Weston	271	307	1.3%	10.1%
<b>WASHINGTON</b>	<b>2,885,677</b>	<b>3,202,241</b>	<b>1.0%</b>	<b>7.1%</b>
<b>Walla Walla</b>	<b>23,451</b>	<b>24,971</b>	<b>0.6%</b>	<b>7.6%</b>
College Place	3,764	4,176	1.0%	10.2%
Prescott	156	152	-0.3%	8.6%
Walla Walla	12,514	13,571	0.8%	7.1%
<b>Benton</b>	<b>68,618</b>	<b>80,076</b>	<b>1.6%</b>	<b>4.6%</b>
Richland	20,876	25,524	2.0%	4.7%
Kennewick	28,507	32,242	1.2%	4.6%
<b>Franklin</b>	<b>24,423</b>	<b>29,740</b>	<b>2.0%</b>	<b>3.3%</b>
Pasco	18,782	24,334	2.6%	2.8%

Sources: U.S. Census Bureau 2010; U.S. Census Bureau 2020

**Table U-3. Oregon State Highway Annual Average Daily Traffic Volumes**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
I-84 (No. 6)	0.30 miles east of Pendleton-John Day Highway (US 395), Emigrant Avenue Interchange	209.84	16,600	16,400	17,200	17,300	15,227	-8.3%
I-84 (No. 6)	0.40 miles east of Oregon-Washington Highway (OR 11), South Pendleton Interchange	211.36	14,000	13,900	14,800	14,900	13,736	-1.9%
I-84 (No. 6)	0.40 miles southeast of Pendleton Highway (US 30), East Pendleton Interchange	213.45	15,500	15,200	16,100	16,200	15,025	-3.1%
I-84 (No. 6)	Mission Jct. Automatic Traffic Recorder, Sta. 30-026, 0.76 miles southeast of Umatilla-Mission Highway No. 331 Interchange	216.81	11,500	11,300	11,800	12,000	10,850	-5.7%
I-84 (No. 6)	0.50 miles west of Deadman's Pass Interchange	228.44	11,300	11,200	11,700	11,900	10,772	-4.7%
I-84 (No. 6)	0.50 miles west of West Emigrant Park Interchange	233.45	11,100	11,100	11,700	11,800	10,862	-2.1%
I-84 (No. 6)	0.50 miles west of East Emigrant Park Interchange	234.55	10,900	10,900	11,500	11,600	10,706	-1.8%
I-84 (No. 6)	0.50 miles west of Meacham Interchange	238.27	10,900	11,000	11,500	11,600	10,785	-1.1%
I-84 (No. 6)	0.50 miles east of Meacham Interchange	239.27	11,100	11,000	11,500	11,600	10,798	-2.7%
I-84 (No. 6)	0.30 miles east of Kamela-Mt. Emily Road Interchange	244.12	10,900	11,000	11,500	11,600	10,822	-0.7%
OR 11 (No. 8)	0.40 miles north of Old Oregon Trail (I-84)	-1.37	6,200	6,100	6,300	3,200	3,133	-49.5%
OR 11 (No. 8)	0.10 miles north of Isaac Avenue	-1.09	4,000	3,900	4,100	5,000	4,830	20.8%
OR 11 (No. 8)	0.02 miles east of 9th street	-0.75	4,700	4,600	4,700	5,700	5,527	17.6%

**Attachment 11: Public Services: Population, Housing, and Transportation Tables**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
OR 11 (No. 8)	East of SE 16th Street [0.02 miles]	-0.33	11,000	11,000	11,300	11,300	10,966	-0.3%
OR 11 (No. 8)	0.25 miles northeast of Pendleton Highway (US 30)	0.25	6,800	6,700	6,900	6,600	6,436	-5.4%
OR 11 (No. 8)	0.02 miles northeast of Riverside Drive	0.35	4,600	4,500	4,600	4,400	4,280	-7.0%
OR 11 (No. 8)	0.02 miles northeast of Lindell Lane	0.48	4,500	4,400	4,500	4,200	4,079	-9.4%
OR 11 (No. 8)	0.06 miles northeast of Riverside School Road	0.77	3,700	3,600	3,700	3,600	3,494	-5.6%
OR 11 (No. 8)	0.10 miles southwest of Havana-Helix Highway	6.09	5,200	5,100	5,300	4,900	4,795	-7.8%
OR 11 (No. 8)	0.02 miles northeast of Havana-Helix Highway	6.21	4,800	4,700	4,900	4,800	4,700	-2.1%
OR 11 (No. 8)	0.08 miles south of Mann Road	11.56	4,400	4,400	4,500	4,000	3,843	-12.7%
OR 11 (No. 8)	East city limits of Adams	12.14	4,200	4,200	4,300	4,300	4,137	-1.5%
OR 11 (No. 8)	0.02 miles west of Pamburn Road	16.05	4,300	4,200	4,300	4,500	4,341	1.0%
OR 11 (No. 8)	0.05 miles south of Athena-Holdman Highway	17.27	3,300	3,200	3,300	3,200	3,117	-5.5%
OR 11 (No. 8)	0.05 miles north of Athena-Holdman Highway	17.37	4,100	4,000	4,200	3,900	3,777	-7.9%
OR 11 (No. 8)	0.22 miles southwest of Weston-Elgin Highway (OR 204)	20.23	4,000	3,900	4,000	3,700	3,587	-10.3%
OR 11 (No. 8)	0.20 miles northeast of Weston-Elgin Highway (OR 204)	20.65	4,600	4,500	4,700	4,600	4,436	-3.6%
OR 11 (No. 8)	0.02 miles northeast of Steen Road (old highway alignment)	21.77	5,100	5,100	5,200	5,200	5,041	-1.2%

**Attachment 11: Public Services: Population, Housing,  
and Transportation Tables**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
OR 11 (No. 8)	0.02 miles north of Blue Mt. Station Road	23.47	4,900	4,900	5,000	5,000	4,887	-0.3%
OR 11 (No. 8)	0.39 miles north of Steen Road	26.59	5,500	5,500	5,600	4,900	4,725	-14.1%
OR 11 (No. 8)	0.02 miles north of S.E. 14th Avenue	26.9	8,100	8,000	8,200	7,000	6,842	-15.5%
OR 11 (No. 8)	0.02 miles south of Freewater Highway (S. Main Street)	30.57	12,200	12,100	12,400	11,700	11,327	-7.2%
OR 11 (No. 8)	0.03 miles north of Freewater Highway (S. Main Street)	30.65	11,000	10,900	11,200	10,400	10,131	-7.9%
OR 11 (No. 8)	0.02 miles south of N.E. 5th Avenue	31.18	11,500	11,300	11,700	10,700	10,374	-9.8%
OR 11 (No. 8)	0.02 miles north of N.E. 5th Avenue	31.22	10,700	10,600	10,900	10,200	9,895	-7.5%
OR 11 (No. 8)	0.28 miles south of Elizabeth Street	31.64	11,900	11,800	12,200	8,600	8,390	-29.5%
OR 11 (No. 8)	0.02 miles south of Sunnyside-Umapine Highway	32.62	13,200	13,100	13,500	11,200	10,868	-17.7%
OR 11 (No. 8)	0.02 miles north of Sunnyside-Umapine Highway	32.66	12,700	12,600	12,900	12,300	11,918	-6.2%
OR 11 (No. 8)	Milton Automatic Traffic Recorder, Sta. 30-021, 0.86 miles south of Oregon- Washington State	34.46	15,400	15,200	15,700	15,300	14,102	-8.4%
OR 11 (No. 8)	0.02 miles south of State Line Road, Oregon-Washington State Line	35.3	13,600	13,400	13,800	13,600	13,175	-3.1%

Sources: ODOT 2016; ODOT 2017; ODOT 2018; ODOT 2019; ODOT 2020a

**Table U-4. Oregon State Highway Pavement Conditions**

<b>Roadway</b>	<b>Approximate Milepost</b>	<b>Pavement Condition</b>
I-84 (No. 6)	180 to 185	Fair
I-84 (No. 6)	185 to 188	Fair <sup>1</sup>
I-84 (No. 6)	188 to 204	Fair
I-84 (No. 6)	204 to 213	Very Good
I-84 (No. 6)	213 to 218	Good
I-84 (No. 6)	218 to 238	Good
OR 11 (No. 8)	0 to 4	Fair
OR 11 (No. 8)	4 to 20	Very Good
OR 11 (No. 8)	20 to 27	Good
OR 11 (No. 8)	27 to 35	Fair

Source: ODOT 2020b

1. As of May 17, 2021, this section of I-84 is planned for construction in 2024 (ODOT 2021). Design has begun and the construction project is anticipated to be open for bids in January 2024.

**References:**

ODOT (Oregon Department of Transportation). 2016. Traffic Volumes on State Highways. 2016. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2017. Traffic Volumes on State Highways. 2017. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2018. Traffic Volumes on State Highways. 2018. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2019. Traffic Volumes on State Highways. 2019. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020a. Traffic Volumes on State Highways. 2020. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020b. 2020 Pavement Condition Report. Pavement Services Unit. January 2021. Accessed October 18, 2021. Available online at: [https://www.oregon.gov/odot/Construction/Documents/Pavement/2020\\_condition\\_report\\_maps.pdf](https://www.oregon.gov/odot/Construction/Documents/Pavement/2020_condition_report_maps.pdf)

ODOT. 2021. Region 5 Eastern Oregon. I-84: Stanfield to Pendleton Pavement Preservation. Accessed October 18, 2021. Available online at: <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20548>

U.S. Census Bureau. 2010. American Fact Finder. Accessed October 18, 2021. Available online at: <https://data.census.gov/cedsci/all>

U.S. Census Bureau. 2020. Decennial Census. Accessed October 18, 2021. Available online at: <https://data.census.gov/cedsci/all>

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 12. Wetlands and Waters Survey Memo**



# MEMO

---

**To:** Chris Powers, NEER

**Cc:** Carrie Konkol, Tetra Tech

**From:** Jess Taylor and Ed Strohmaier, Tetra Tech

**Date:** June 10, 2021

**Correspondence #** TT CES-PTLD-2021-080

---

**Subject:** Vansycle II RFA6 Repower, Pre-Construction Wetlands and Waters Survey

---

## Introduction

This memo describes the methods and results of the survey for wetlands and other waters of the state conducted on April 14, 2021 within the existing operational Vansycle II Wind Project (Facility; Figure 1). Construction for repowering the Project may require temporary widening of access roads to accommodate large cranes that will be used to replace turbine blades.

The focus of the survey was four separate locations close to existing Facility access roads, where the National Hydrography Dataset (NHD) had previously mapped three intermittent streams. There are no mapped National Wetlands Inventory (NWI) features in the survey areas. The survey was intended to confirm whether jurisdictional wetlands or streams were present at those four locations.

A wetlands and other waters delineation was performed within the Project Boundary in 2008, and Oregon Department of State Lands (ODSL) provided jurisdictional concurrence for the delineation report on September 10, 2009 (WD2008-0581); however, the ODSL concurrence is only considered valid for 5 years.

## Methods

In preparation for the field work, Tetra Tech reviewed the 2008 delineation for the Facility, as well as the NWI, NHD, Natural Resources Conservation Service (NRCS) soils data, and aerial photographs to identify potential wetlands and other waters. Tetra Tech prepared digital field maps

with these data and uploaded these maps onto a data collection tablet to assist field staff in identifying the locations of wetlands and non-wetland waters within the survey areas.

The following guidance documents and procedures were reviewed:

- Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region Version 2.0 (Arid West Supplement; USACE 2008).
- Wetlands Delineation Manual, Technical Report Y-87-1 (the Manual; USACE 1987);
- Streamflow Duration Assessment Method for the Pacific Northwest (Nadeau 2015);
- Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979); and
- Oregon Administrative Rules (OAR) 141-090, Administrative Rules for Wetland Delineation Report Requirements and for Jurisdictional Determinations for the Purpose of Regulating Fill and Removal within Waters of the State.

## Findings

Figures showing the four survey area locations, and the field survey photolog are attached to this memo. Table 1 summarizes the findings of the survey.

**Table 1. 2021 Survey Areas**

Photo Number	Map Figure	Mapped NHD Feature	Field Determination	Notes	Jurisdictional
001,002	2	Intermittent Stream	ST-01 Ephemeral Stream	No signs of recent flows in this ephemeral drainage. Stream is about a foot wide and contains all upland species ( <i>Bromus tectorum</i> , <i>Sisymbrium altissimum</i> ). No macroinvertebrate casings were found. The drainage loses channel definition from Photo Point 002, northwest to the edge of the access road. Substrate is silt. No evidence was observed that the drainage flows across the access road. The stream continues outside of the survey area to the southeast.	No

Photo Number	Map Figure	Mapped NHD Feature	Field Determination	Notes	Jurisdictional
003	2	Intermittent Stream	ST-02 Ephemeral Stream	The ephemeral drainage originates on the west (down gradient) side of the access road. The drainageway exhibited signs of infrequent flow. No hydrophytic vegetation was present in or adjacent to the channel. The stream continues outside of the survey area to the southwest.	No
004	3	Intermittent Stream	No Stream Present	This location is north of Wayland Road and is within a wheat field. No defined drainageway.	No
005, 006	4	Intermittent Stream	No Stream Present	This location is within a wheat field. The NHD feature would be the headwater of Gerking Creek. No bed or banks and no evidence of a drainageway through the field, adjacent to the existing access road.	No
007	5	Intermittent Stream	No Stream Present	No bed or banks and no evidence of a drainageway.	No

Tetra Tech determined that there were no jurisdictional wetlands or other waters of the state that would be temporarily widened for construction located within the surveyed areas adjacent to access roads (Figures 2 through 5).

Two ephemeral streams (ST-01 and ST-02) were delineated on opposite sides of an existing access road where NHD had mapped an intermittent stream (Figure 2). These drainageways exhibited no characteristics of intermittent or perennial streams. Ephemeral stream ST-01 flows to the northwest (Photo 1). The drainageway becomes indistinct and disappears completely approximately 60 feet before the edge of the access road (Photo 002). Ephemeral stream ST-02 is located on the west (downstream) side of the access road. ST-02 exhibited marginal signs of infrequent surface flow. The drainageway continues towards the southwest, outside of the survey area (Photo 003).

All other mapped NHD streams were determined to be not present within the other three survey areas (Figures 3, 4, and 5); therefore, no jurisdictional wetlands or other waters of the state will be impacted by the temporary widening of existing access roads.

## References

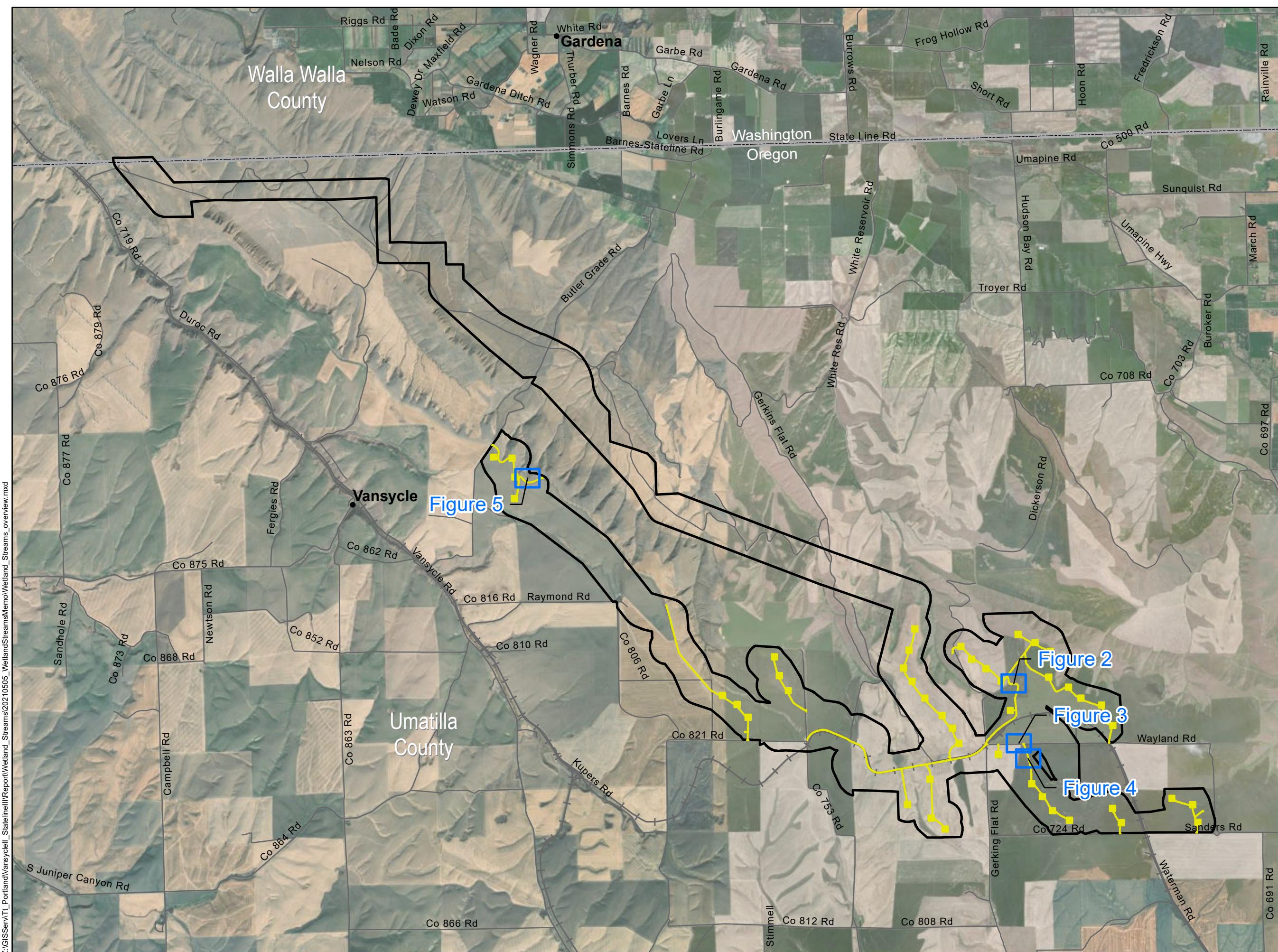
Cowardin, L.M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, Washington, DC. FWS/OBS-79/31.

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, WA.

USACE (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. January 1987. Wetlands Research Program. U.S. Army Corps of Engineers, Waterways Experiment Station, 3909 Halls Ferry Road, Vicksburg, MS 39180-6199.

USACE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J.S. Wakeley, R. W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

# **Figures**

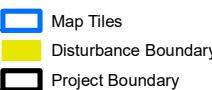


# Stateline Wind Project

## Request for Amendment 6

The logo for Vansycle II NEXTera ENERGY resources. It features the word "Vansycle" in a large, bold, black sans-serif font. Below it, "NEXTera" is written in a green sans-serif font, with "NEXT" in green and "era" in blue. To the right of "era" is a stylized blue and green swoosh graphic. Below "NEXTera" is the word "ENERGY" in a large, bold, black sans-serif font. At the bottom of the swoosh graphic, the words "RESOURCES" are written in a smaller, black sans-serif font.

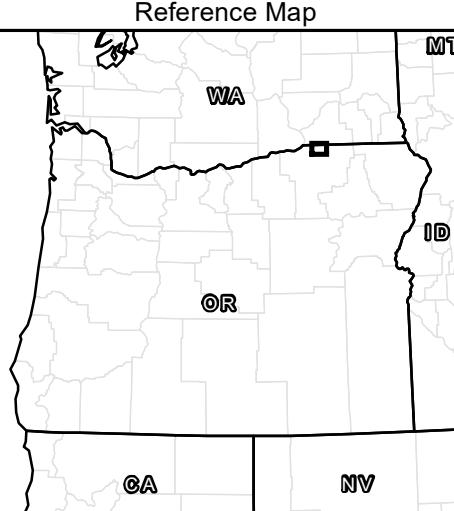
# Figure 1 Overview Wetlands and Other Waters Delineation UMATILLA, OR



1.5  
Mil

AD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

TETRA TECH



Data Sources: ESRI Streetmap, Oregon State Historic Preservation Office

Not for Construction

Stateline Wind Project  
Request for Amendment 6

Vansycle II



Figure 2  
Wetlands and Other Waters  
Delineation  
UMATILLA, OR

Photo Point

Field Delineated Stream  
(Delineated stream continues  
outside the study area)

Disturbance Boundary

Project Boundary

\*Delineated stream continues  
outside the study area



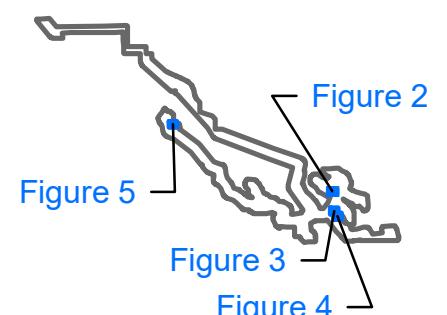
0 25 50 100 Feet

1:1,200

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l



Reference Map

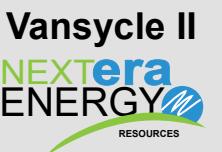


Data Sources: ESRI Streetmap, Oregon  
State Historic Preservation Office

Not for Construction



Stateline Wind Project  
Request for Amendment 6



**Figure 3**  
**Wetlands and Other Waters**  
**Delineation**  
UMATILLA, OR



**Figure 4**  
Wetlands and Other Waters  
Delineation  
UMATILLA, OR

- Photo Point
- NHD Stream (No Stream Present - Not Jurisdictional)
- Disturbance Boundary
- Project Boundary

\*Delineated stream continues outside the study area



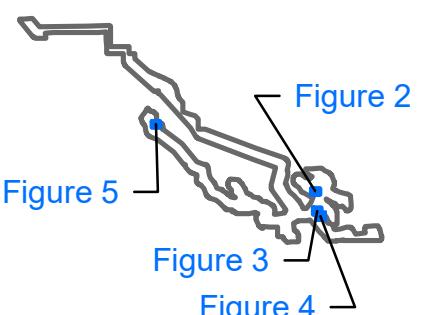
0 25 50 100 Feet

1:1,200

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

**TETRA TECH**

Reference Map



Data Sources: ESRI Streetmap, Oregon  
State Historic Preservation Office

Not for Construction





## Stateline Wind Project Request for Amendment 6

The logo for Vansycle II NEXTera ENERGY RESOURCES. It features the word "Vansycle" in a large, bold, black sans-serif font. Below it, "NEXTera" is written in a green sans-serif font, with "NEXT" in green and "era" in blue. "ENERGY" is in a large, bold, blue sans-serif font. A stylized blue swoosh graphic is positioned to the right of "ENERGY". At the bottom, the word "RESOURCES" is written in a smaller, black sans-serif font, accompanied by a green swoosh graphic.

**Figure 5**  
**Wetlands and Other Waters**  
**Delineation**  
**UMATILLA, OR**

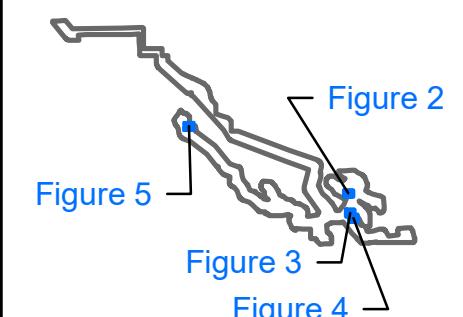
- Photo Point
- NHD Stream (No Stream Present - Not Jurisdictional)
- Disturbance Boundary
- Project Boundary

\*Delineated stream continues outside the study area



A scale bar at the bottom of the map. It features a horizontal line with tick marks at 0, 25, 50, and 100. Below the 0 mark is the text "1:1,200". To the right of the 100 mark is the word "Feet".

TETRA TECH  
Reference Map



Data Sources: ESRI Streetmap, Oregon State Historic Preservation Office

Not for Construction

# **Photolog**



**Photo 001.** Ephemeral stream ST-01. The drainageway is less than 1-foot wide. All upland vegetation is present in and adjacent to the channel. Photo direction is northwest.



**Photo 002.** Ephemeral stream ST-01 ends before reaching the access road. There was no evidence of flow continuing across the road. All upland vegetation was present. Photo direction is northwest.



**Photo 003.** Ephemeral stream ST-02 starts on the west side of the access road. The drainage exhibited shallow bed and banks and continues to the southwest where it flows out of the survey area. Photo direction is west.



**Photo 004.** View is from Wayland Road. No drainageway is present north of the road where NHD has mapped an intermittent stream through the wheat field. Photo faces northeast.



**Photo 005.** No drainageway is present in the wheat field on the east side of the access road.  
Photo faces southeast.



**Photo 006.** No drainageway is present in the wheat field on the west side of the access road.  
Photo faces northwest.



**Photo 007.** No drainageway is present within at least 200 feet of the north side of the access road. The swale viewed in the distance is outside of the survey area. All upland vegetation. Photo faces northwest.

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

## **Attachment 13. Property Owner List**

Map Tax Lot	First Name	Last Name	Name 2	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
5N33000002300				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33000004700				B & B RANCHES		79308 HELIX HIGHWAY	PENDLETON	OR	97801
5N33000004800				RAYMOND & SON		46847 RAYMOND RD	HELIX	OR	97835
5N33000004900	JAMES LEE	WILLIAMS	LESLIE SUSAN			43229 HOLDMAN RD	HELIX	OR	97835
5N33000005000	JIM M	LEMM				8144 STONEHAVEN DR	HAYDEN	ID	83835
5N33000005100				SPRATLING LAND LLC		76725 HELIX HIGHWAY	PENDLETON	OR	97801
5N33000007800	JAMES E	WILLIAMS	LESLIE S			43229 HOLDMAN RD	HELIX	OR	97835
5N33000007900				BURLINGTON NORTHERN R/R CO		PO BOX 961089	FORT WORTH	TX	76161
5N33A00000100				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N33A00000200				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00000300				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00000400				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00000500				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00000600				SPRATLING LAND LLC		76725 HELIX HIGHWAY	PENDLETON	OR	97801
5N33A00000700				PATER RANCH COMPANY LLC		14607 NE 65TH CT	REDMOND	WA	98052
5N33000011400				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00000900				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00001000				PATER RANCH COMPANY LLC		14607 NE 65TH CT	REDMOND	WA	98052
5N33A00001100				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N33A00001200	TONY R	RAYMOND				46847 RAYMOND RD	HELIX	OR	97835
5N33A00001300				COOK DONALD J & LILLIAN (LE) ETAL		32200 SW FRENCH PRAIRIE RD APT B304	WILSONVILLE	OR	97070
5N33A00001400				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N33B00000100	TONY R	RAYMOND				46847 RAYMOND RD	HELIX	OR	97835
5N33B00000200	FRANK N	DUFF	NANCY REES			82900 BUTLER GRADE RD	HELIX	OR	97835
5N33B00000200A1	NANCY	DUFF				82900 BUTLER GRADE RD	HELIX	OR	97835
5N33B00000300	NANCY	REES-DUFF				82900 BUTLER GRADE RD	HELIX	OR	97835
5N33B00000600	KIRK	TERJESON				82526 VANCYCLE RD	HELIX	OR	97835
5N33B00001300U1				DUFF FRANK N & NANCY REES ETAL		82900 BUTLER GRADE RD	HELIX	OR	97835
5N33B00001300U2				DUFF FRANK N & NANCY REES ETAL		82900 BUTLER GRADE RD	HELIX	OR	97835
5N33B00001400	TIMOTHY J	SMITH				82717 BUTLER GRADE RD	HELIX	OR	97835
5N33B00001500	KIRK	TERJESON				82526 VANCYCLE RD	HELIX	OR	97835
5N33B00001600				PATER RANCH COMPANY LLC		14607 NE 65TH CT	REDMOND	WA	98052
5N33B00002400				TERJESON KIRK TRS ET AL		209 NW 9TH ST	PENDLETON	OR	97801
5N33B00002500				TERJESON PATRICIA G & KIRK (TRS)		209 NW 9TH ST	PENDLETON	OR	97801
5N33B00002700				RAYMOND & SON INC		46847 RAYMOND RD	HELIX	OR	97835
5N34000000500U1				SCHUBERT CR (TRS) 1/2 ETAL1/2		85149 TUM A LUM RD	MILTON FREEWATER	OR	97862
5N34000000500U2				KESSLER RANDAL ETAL 1/2 ETAL 1/2		49838 FRUITVALE RD	MILTON FREEWATER	OR	97862
5N34000000600				SCHUBERT ROBERT D LE ETAL		49726 TROYER RD	MILTON FREEWATER	OR	97862

Map Tax Lot	First Name	Last Name	Name 2	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
5N34000000700	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
5N34000000790	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
5N34000000800				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000001100				SPRATLING LAND LLC		76725 HELIX HIGHWAY	PENDLETON	OR	97801
5N34000001200				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N34000001300				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000001380				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000001390				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000001400				SUNNY COVE RANCHES INC		PO BOX 359	ATHENA	OR	97813
5N34000001500U1				MCCORMMACH MAUREEN 1/3 ETAL 2/3		23214 SANDRIDGE RD	OCEAN PARK	WA	98640
5N34000001500U2				MCCORMMACH MARSHA JEAN (TRS) & ETAL 2/3		1982 E HOOKER RD	HERMISTON	OR	97838
5N34000001500U3				PUGH TRUST ET AL		75780 HELIX HIGHWAY	PENDLETON	OR	97801
5N34000001800U1				GEISSEL SALLY 33.34% ETAL 66.66%		PO BOX 11	ATHENA	OR	97813
5N34000001800U2				WOODROOFE MICHAEL (TRS)2/3 ETAL 1/3		419 PEARL ST	YPSILANTI	MI	48197
5N34000001900				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N34000002000	JAMES LEE	WILLIAMS	LESLIE SUSAN			43229 HOLDMAN RD	HELIX	OR	97835
5N34000002100				SPRATLING LAND LLC		76725 HELIX HIGHWAY	PENDLETON	OR	97801
5N34000002200				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N34000002300				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000002301				NORTHSTAR FARMS INC		PO BOX 14	ADAMS	OR	97810
5N34000002302	GARY	GRABER	DEBBIE			81876 GERKING FLAT RD	ATHENA	OR	97813
5N34000002400				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000002401				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000002500				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34000004601	ALAN L	FROESE				81310 GERKING FLAT RD	ATHENA	OR	97813
5N34000004900	ALAN L	FROESE	CHRIS			81310 GERKING FLAT RD	ATHENA	OR	97813
5N34000005000				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N34000005100				SPRATLING LAND LLC		76725 HELIX HIGHWAY	PENDLETON	OR	97801
5N34000006700				BURLINGTON NORTHERN R/R CO		PO BOX 961089	FORT WORTH	TX	76161
5N34000006701	JAMES E	WILLIAMS	LESLIE S			43229 HOLDMAN RD	HELIX	OR	97835
5N34000006702				SAND HOLLOW RANCH INC		62575 STARR LN	LA GRANDE	OR	97850
5N34000006703				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
5N34D00000200U1				WEIDERT TIMOTHY S ET AL		4303 78TH AVE SW	OLYMPIA	WA	98512
5N34D00000200U2				WEIDERT BETTY 12.5% ETAL 87.5%		1000 S HWY 395 SUITE A #123	HERMISTON	OR	97838
5N34D00000300	TIMOTHY S	WEIDERT				1030-A NW 12TH ST	PENDLETON	OR	97801
5N34D00000400U1				WEIDERT TIMOTHY S ET AL		PO BOX 1796	WALLA WALLA	WA	99362
5N34D00000400U2				WEIDERT BETTY 12.5% ETAL 87.5%		1000 S HWY 395 SUITE A #123	HERMISTON	OR	97838
5N34D00001100				FDS FARMS LLC		6200 W PARAPET CT	BOISE	ID	83703

Map Tax Lot	First Name	Last Name	Name 2	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
5N34D00001100A1	DARLA R	CLARK				PO BOX 388	ATHENA	OR	97813
5N34D00001200				FDS FARMS LLC		6200 W PARAPET CT	BOISE	ID	83703
5N34D00002900				BURLINGTON NORTHERN R/R CO		PO BOX 961089	FORT WORTH	TX	76161
6N32000000100U1				BOAZ DONNA 25% ET AL 75%		205 WALLULA AVE	WALLA WALLA	WA	99362
6N32000000100U2				DEMARIS DAVE 75% ETAL 25%		PO BOX 713	MILTON FREEWATER	OR	97862
6N32000000200U1				BOAZ DONNA 25% ET AL 75%		205 WALLULA AVE	WALLA WALLA	WA	99362
6N32000000200U2				DEMARIS DAVE 75% ETAL 25%		PO BOX 713	MILTON FREEWATER	OR	97862
6N32000000201U1				BOAZ DONNA 25% ET AL 75%		205 WALLULA AVE	WALLA WALLA	WA	99362
6N32000000201U2				DEMARIS DAVE 75% ETAL 25%		PO BOX 713	MILTON FREEWATER	OR	97862
6N32000000800				BARNETT-RUGG INC		PO BOX 617	ATHENA	OR	97813
6N32000000900	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N32000001000U1				BOAZ DONNA 25% ET AL 75%		205 WALLULA AVE	WALLA WALLA	WA	99362
6N32000001000U2				DEMARIS DAVE 75% ETAL 25%		PO BOX 713	MILTON FREEWATER	OR	97862
6N32000001100	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N32000001200	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N32000001300	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000001400				KREGGER FARMING ENTERPRISES LLC		17232 STATELINE RD	TOUCHET	WA	99360
6N33000001500				WEAVER RESOURCES LLC		1448 LOWDEN GARDENA RD	TOUCHET	WA	99360
6N33000001600L1				DEMARIS DAVE & BOAZ DONNA1/2 ETAL 1/2		697 UNIVERSE BLVD #PSX/JB	JUNO BEACH	FL	33408
6N33000001600L2				DEMARIS DAVE 1/2 ETAL 1/2		700 UNIVERSE BLVD #PSX/JB	JUNO BEACH	FL	33408
6N33000001600U1				BOAZ DONNA 25% ET AL 75%		205 WALLULA AVE	WALLA WALLA	WA	99362
6N33000001600U2				DEMARIS DAVE 75% ETAL 25%		PO BOX 713	MILTON FREEWATER	OR	97862
6N33000001700	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000002000	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000002100	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000002200	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000002300				CAMPBELL T, J & D 25% KONTOS B 25%		336 MCCORKLE LN	WALLA WALLA	WA	99362
6N33000002400				WEAVER RESOURCES LLC		1448 LOWDEN GARDENA RD	TOUCHET	WA	99360
6N33000002500				WEAVER RESOURCES LLC		1448 LOWDEN GARDENA RD	TOUCHET	WA	99360
6N33000002800	ERIC JT	HARLOW	KATIE A			85080 BUTLER GRADE RD	MILTON FREEWATER	OR	97862
6N33000002802	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
6N33000002805	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
6N33000002806	JIM D	SCHUBERT	GAYL			1020 MERCITA DR	WALLA WALLA	WA	99362
6N33000002811				CAMPBELL T, J & D 25% KONTOS B 25%		336 MCCORKLE LN	WALLA WALLA	WA	99362
6N33000002812				CAMPBELL T, J & D 25% KONTOS B 25%		336 MCCORKLE LN	WALLA WALLA	WA	99362
6N33000003000	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
6N33000003100	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
6N33000003300	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835

Map Tax Lot	First Name	Last Name	Name 2	Company/Organization	C/O-Attn.	Address	City	State	Zip Code
6N33000003390	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000003500	R TONY	RAYMOND				46847 RAYMOND RD	HELIX	OR	97835
6N33000003501	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000004000	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000004100	KIRK	TERJESON	GUNDER			82526 VANCYCLE RD	HELIX	OR	97835
6N33000004200	R TONY	RAYMOND				46847 RAYMOND RD	HELIX	OR	97835
6N33000004200A1				INSTAD RADIO WASHINGTON		4304 W 24TH AVE #STE 200	KENNEWICK	WA	99338
6N33000004300	R TONY	RAYMOND				46847 RAYMOND RD	HELIX	OR	97835
6N33000004400				J&P WHITNEY PROPERTIES LLC		PO BOX 1614	PENDLETON	OR	97801
6N34000003800	JAMES D	SCHUBERT				1020 MERCITA DR	WALLA WALLA	WA	99362
320613000001				DYKES HOLDINGS LLC		125 T BAR T RD	WALLA WALLA	WA	99362
320614110001				DYKES HOLDINGS LLC		125 T BAR T RD	WALLA WALLA	WA	99362
320614210002	DONNA	BOAZ				205 WALLULA AVE	WALLA WALLA	WA	99362
320615000001	DONNA	BOAZ				205 WALLULA AVE	WALLA WALLA	WA	99362
320615110002				BNSF RAILWAY COMPANY		PO BOX 961089	FORT WORTH	TX	76161
330617110002				WEAVER RESOURCES LLC		1448 LOWDEN GARDENA RD	TOUCHET	WA	99360
330617220001	DONNA	BOAZ				205 WALLULA AVE	WALLA WALLA	WA	99362
330618110002	DONNA	BOAZ				205 WALLULA AVE	WALLA WALLA	WA	99362
330618220001				DYKES HOLDINGS LLC		125 T BAR T RD	WALLA WALLA	WA	99362

- Data obtained from Umatilla County on October 1, 2021 and Walla Walla County on November 16, 2021

Stateline Wind Project  
Request for Amendment 6



Overview  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- Map Tiles
- Project Boundary
- Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

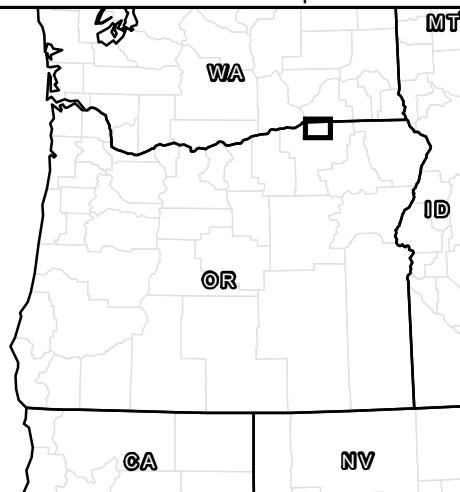


0 1.5 Miles  
1:108,865

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

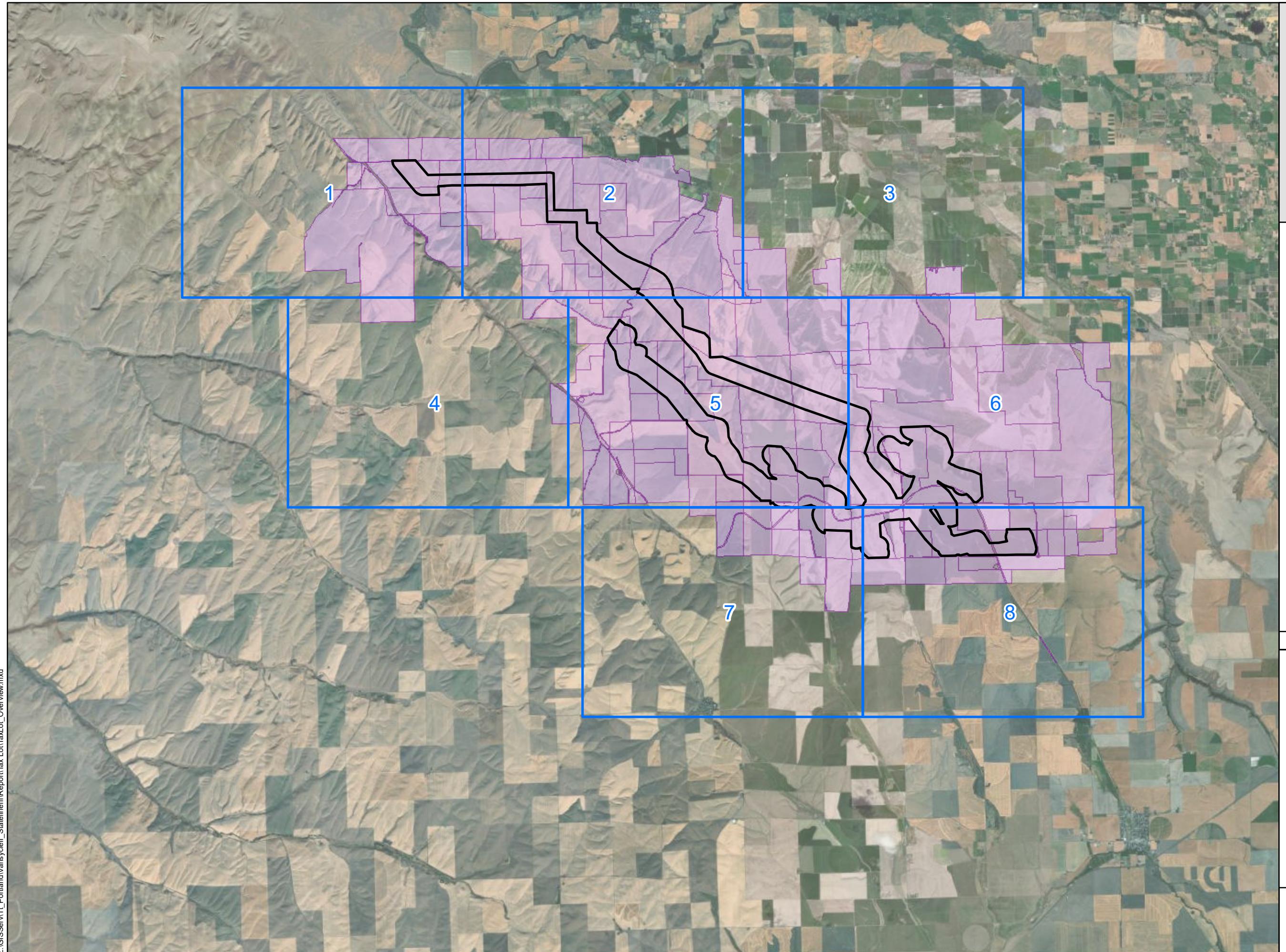


Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction



Stateline Wind Project  
Request for Amendment 6



Map Number 1  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Project Boundary  
Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

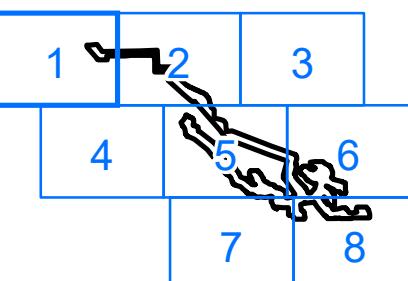


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

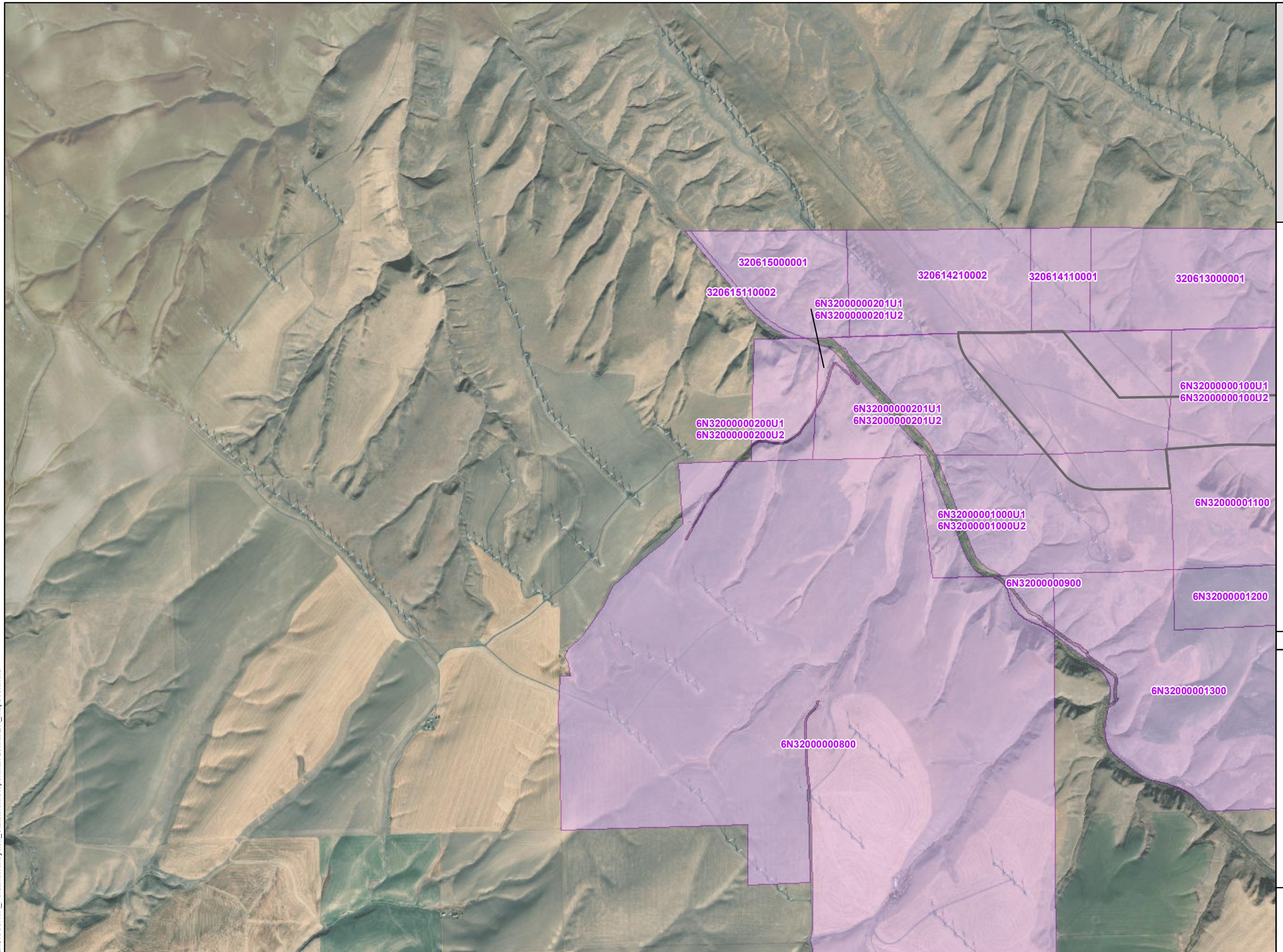


Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction

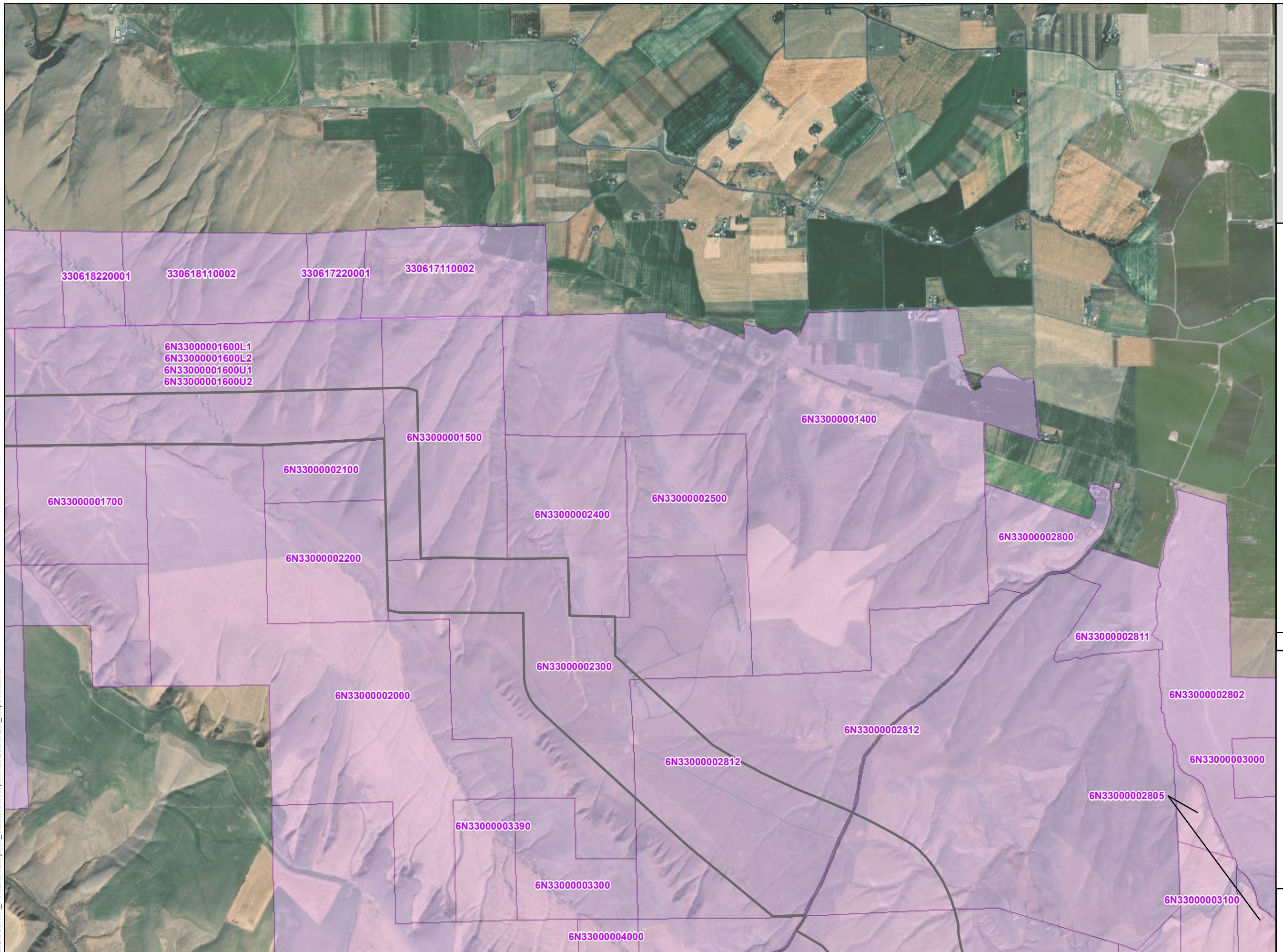


Stateline Wind Project  
Request for Amendment 6



Map Number 2  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA



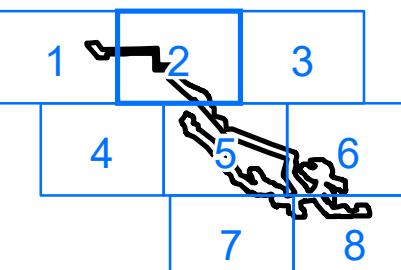
Project Boundary  
Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

0 500 1,000 2,000  
1:24,000  
NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

TETRA TECH

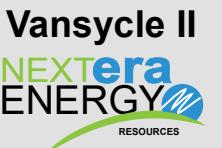
Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction

Stateline Wind Project  
Request for Amendment 6



Map Number 3  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

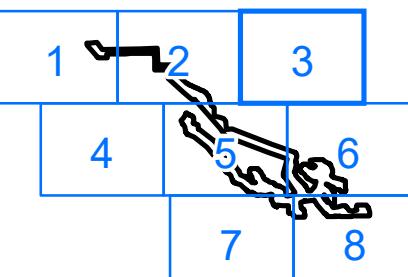


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl



Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction



Stateline Wind Project  
Request for Amendment 6

Vansycle II  
**NEXTera**  
ENERGY  
RESOURCES

Map Number 4  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

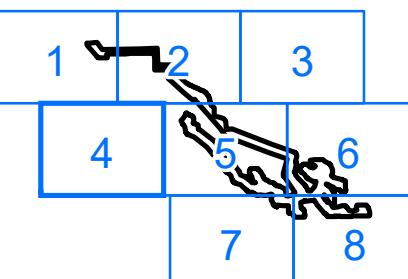


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

TETRA TECH

Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction



Stateline Wind Project  
Request for Amendment 6



Map Number 5  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Project Boundary  
Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

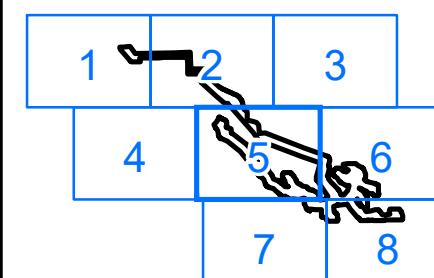


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

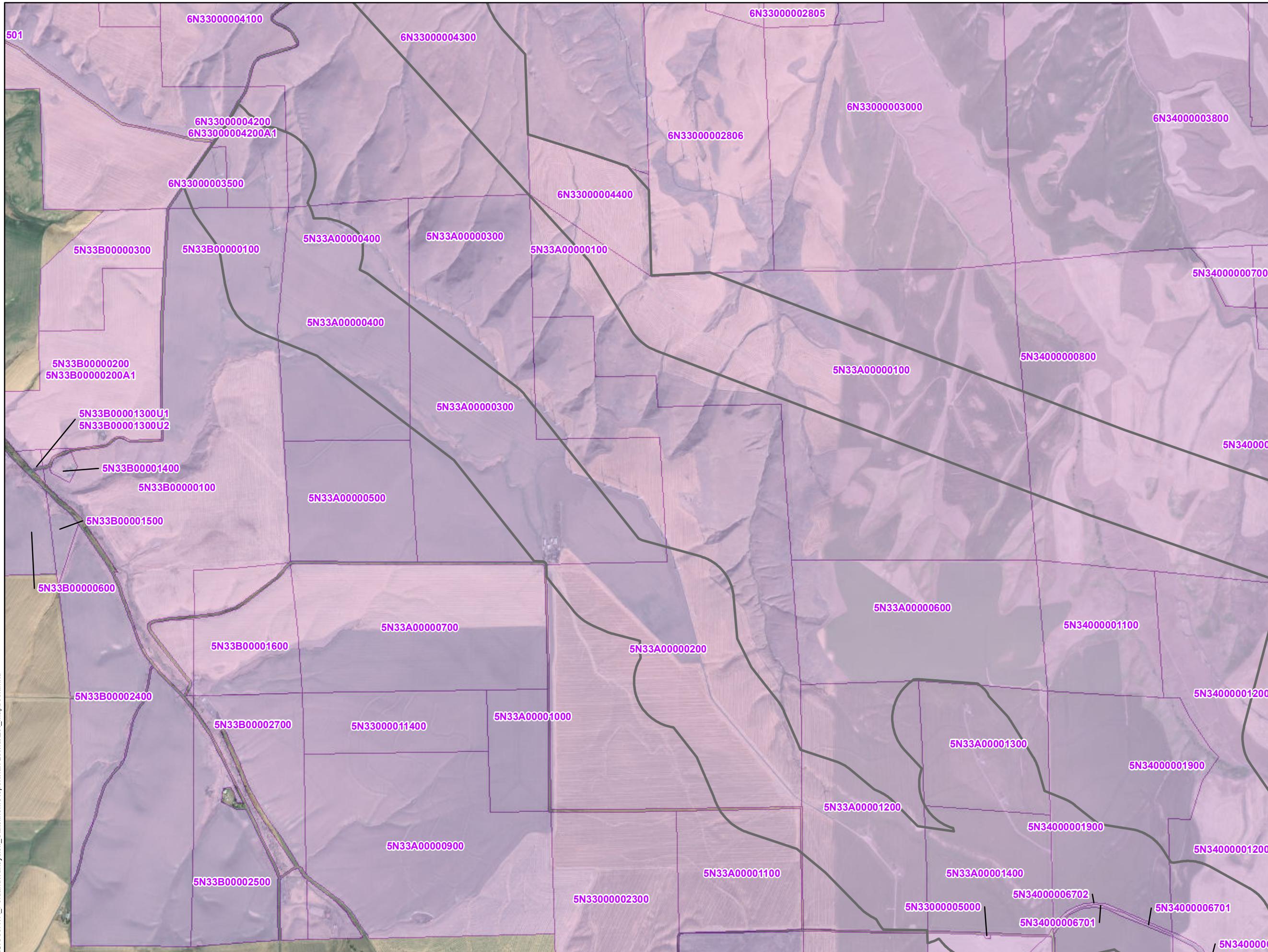
TETRA TECH

Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction



# Stateline Wind Project

## Request for Amendment 6

The logo for Vansycle II NEXTera ENERGY. It features the word "Vansycle" in a large, bold, black sans-serif font. Below it, "NEXTera" is written in a blue sans-serif font, with "NEXT" in green and "era" in blue. Underneath that, "ENERGY" is in a large, bold, black sans-serif font. A green curved line starts from the bottom left, goes up to the "G" in "ENERGY", and then curves back down. To the right of the "Y" in "ENERGY" is a stylized "W" logo composed of three curved lines. Below the main text, the word "RESOURCES" is written in a smaller, black sans-serif font.

## Map Number 6 Tax Lots

**UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA**

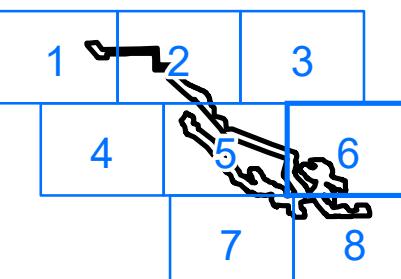
- Project Boundary
- Tax Lot Boundary\*

\*Data obtained from Umatilla County on October 1, 2021 and Walla Walla County on November 16, 2021



0 500 1,000 2,000 Feet  
1:24,000

www.123RF.com



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction

Stateline Wind Project  
Request for Amendment 6



Map Number 7  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Project Boundary  
Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

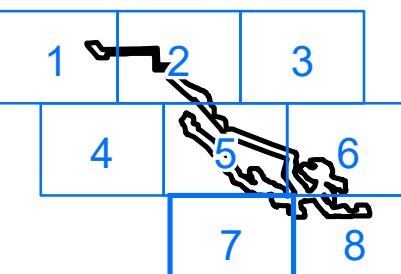


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl



Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction

Stateline Wind Project  
Request for Amendment 6



Map Number 8  
Tax Lots

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

Project Boundary  
Tax Lot Boundary\*

\*Data obtained from Umatilla County  
on October 1, 2021 and  
Walla Walla County on November 16, 2021

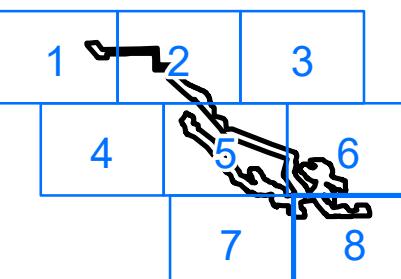


0 500 1,000 2,000  
Feet  
1:24,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

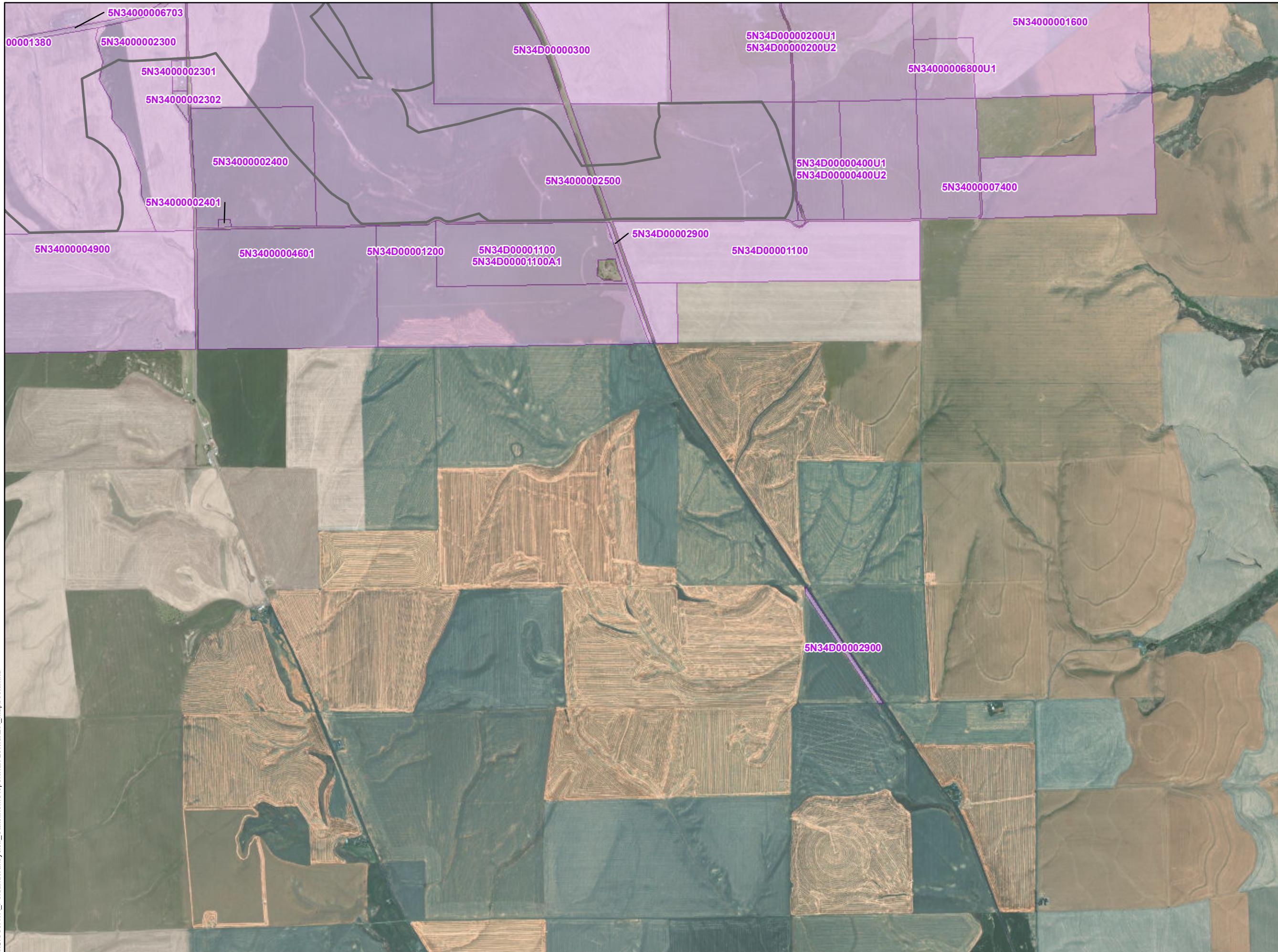


Reference Map



Data Sources: ESRI Streetmap,  
Umatilla County

Not for Construction



## Gulick, Kristen

---

**From:** Yurtinus, Corey  
**Sent:** Friday, October 1, 2021 2:07 PM  
**To:** Tracie Diehl  
**Subject:** RE: datalink

Tracie,

Thank you for sending along the link. I wish you the best in your future endeavors!

**Corey Yurtinus** | Señor GIS Analyst/GPS Specialist  
Cell: 702.496.6086  
[corey.yurtinus@tetrtech.com](mailto:corey.yurtinus@tetrtech.com)

**Tetra Tech** | Boise Office  
3380 Americana Terrace, Suite 201 | Boise, Idaho 83706 | [www.tetrtech.com](http://www.tetrtech.com)

PLEASE NOTE: This message, including any attachments, may include confidential and/or inside information. Any distribution or use of this communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient, please notify the sender by replying to this message and then delete it from your system.

---

**From:** Tracie Diehl <[tracie.diehl@umatillacounty.net](mailto:tracie.diehl@umatillacounty.net)>  
**Sent:** Friday, October 1, 2021 11:48 AM  
**To:** Yurtinus, Corey <[Corey.Yurtinus@tetrtech.com](mailto:Corey.Yurtinus@tetrtech.com)>  
**Subject:** datalink

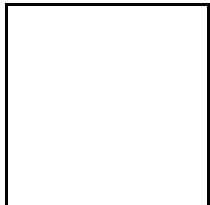
**⚠ CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments. **⚠**

Hello Corey,

Here is the data link for the data you requested. I am leaving Umatilla County's employment as of today. Please email [gis@umatillacounty](mailto:gis@umatillacounty) and pass that address along to all of the employees that you know have requested data.

<https://drive.google.com/drive/folders/1CoUUROZcindGP2Wegql3EuAehAUfemb9?usp=sharing>

Cordially  
Tracie



*Tracie Diehl*

GIS Manager  
Umatilla County GIS Division  
216 SE 4th Street

Pendleton, OR 97801

Phone: 541-278-6232 Fax: 541-278-6345

webpage: [www.umatillacounty.net](http://www.umatillacounty.net)

Please Be Aware - Documents such as emails, letters, maps, reports, etc. sent from or received by Umatilla County are subject to Oregon Public Records law and are NOT CONFIDENTIAL. This includes materials that may contain sensitive data or other information, and Umatilla County will not be held liable for its distribution.

**From:** [publicrecords@co.walla-walla.wa.us](mailto:publicrecords@co.walla-walla.wa.us)  
**To:** [Yurtinus, Corey](mailto:Yurtinus, Corey)  
**Subject:** [Document Released to Requester] Walla Walla County public records request #21-355  
**Date:** Tuesday, November 16, 2021 1:52:06 PM

**CAUTION:** This email originated from an external sender. Verify the source before opening links or attachments.

-- Attach a non-image file and/or reply ABOVE THIS LINE with a message, and it will be sent to staff on this request. --

## Walla Walla County Public Records

Documents have been released for record request #21-355 along with the following message:

This letter serves as Walla Walla County's update, pursuant to [RCW 42.56.520](#), to your public records request.

A link/links to records responsive to your request are at the bottom of this message.

The County estimates that it will take approximately thirty (30)/sixty (60) business days to provide another installment of responsive documents, determine whether any of the responsive documents are subject to applicable exemptions under the Public Records Act, and to notify any third parties affected by the request. If third party notification is required, twenty (20) business days will be allowed for a response by the third party to those records which specifically pertain to them. I estimate another installment of responsive records on or around [MONTH DAY YEAR].

Additionally, the Washington Public Records Act ([RCW 42.56.120](#)) and [Walla Walla County Policy](#) 7.4.3.1 now allow the

County to charge for provision of electronic records. Refer to the hyperlinked documents for the fee schedule for future records installments.

- [WWCntyShapefile.zip](#)
- [WallaWallaCountyDatabaseFiles2021CertifiedValues.zip](#)
- [WallaWallaCountyDatabaseFiles2022NoValues.zip](#)

[View Request 21-355](#)

<https://wallawallacountywa.nextrequest.com/requests/21-355>

Document links are valid for one month. After December 16, you will need to sign in to view the document(s).



[POWERED BY NEXTREQUEST](#)

*The All in One Records Requests Platform*

*Questions about your request? Reply to this email or sign in to contact staff at Walla Walla County.*

*Technical support: See our [help page](#)*

**Request for Amendment #6  
for the Stateline Wind Project**

---

This page intentionally left blank

# Table of Contents for Appendices

Appendix A. Notice Criteria Tool Results	2
Appendix B_Cultural Context Map	4
Appendix C_NEER-2020-Energy-Storage	5
Appendix D_Murdock, Gary_rev	9
Appendix E_Public Services Tables	11
1 This attachment presents updated population, housing, traffic and transportation data relative to the proposed RFA 6 Facility modifications. Tables U-1, U-2, U-3, and U-4 from Exhibit U of RFA 5 were updated to reflect the 2020 census data (U.S. Census Bureau 2020), traffic counts from 2016 to 2020 (ODOT 2016, 2017, 2018, 2019, and 2020a) and 2020 pavement conditions (ODOT 2020b).	11
2 Table U-1. Population by State, County, and Community in the Area of Influence	11
3 Table U-2. Housing Supply in Counties and Communities within the Area of Influence	12
4 Table U-3. Oregon State Highway Annual Average Daily Traffic Volumes	13
5 Table U-4. Oregon State Highway Pavement Conditions	16
Appendix F_Vansyclell_RAIs_Noise_compiled	17
Appendix G1_Siemens Wind Turbine SWT-2.3-108_EN_508	27
1 Attachment 2 Sample Turbine Specifications Brochure	27
1.1 The industry standard, redefined	30
1.2 Superior performance provides higher yields	31
1.3 No compromise on reliability	32
1.4 Technical Specifications	33
Appendix G2_siemens-gamesa-onshore-wind-turbine-sg-2-6-114-en	36
Appendix G3_siemens-gamesa-onshore-wind-turbine-sg-2-9-129-en	40
Appendix G4_siemensgamesaonshorewindturbinesg26126en	44



## Notice Criteria Tool

### Notice Criteria Tool - Desk Reference Guide V\_2018.2.0

The requirements for filing with the Federal Aviation Administration for proposed structures vary based on a number of factors: height, proximity to an airport, location, and frequencies emitted from the structure, etc. For more details, please reference [CFR Title 14 Part 77.9](#).

You must file with the FAA at least 45 days prior to construction if:

- your structure will exceed 200ft above ground level
- your structure will be in proximity to an airport and will exceed the slope ratio
- your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b)
- your structure will emit frequencies, and does not meet the conditions of the [FAA Co-location Policy](#)
- your structure will be in an instrument approach area and might exceed part 77 Subpart C
- your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception
- your structure will be on an airport or heliport
- filing has been requested by the FAA

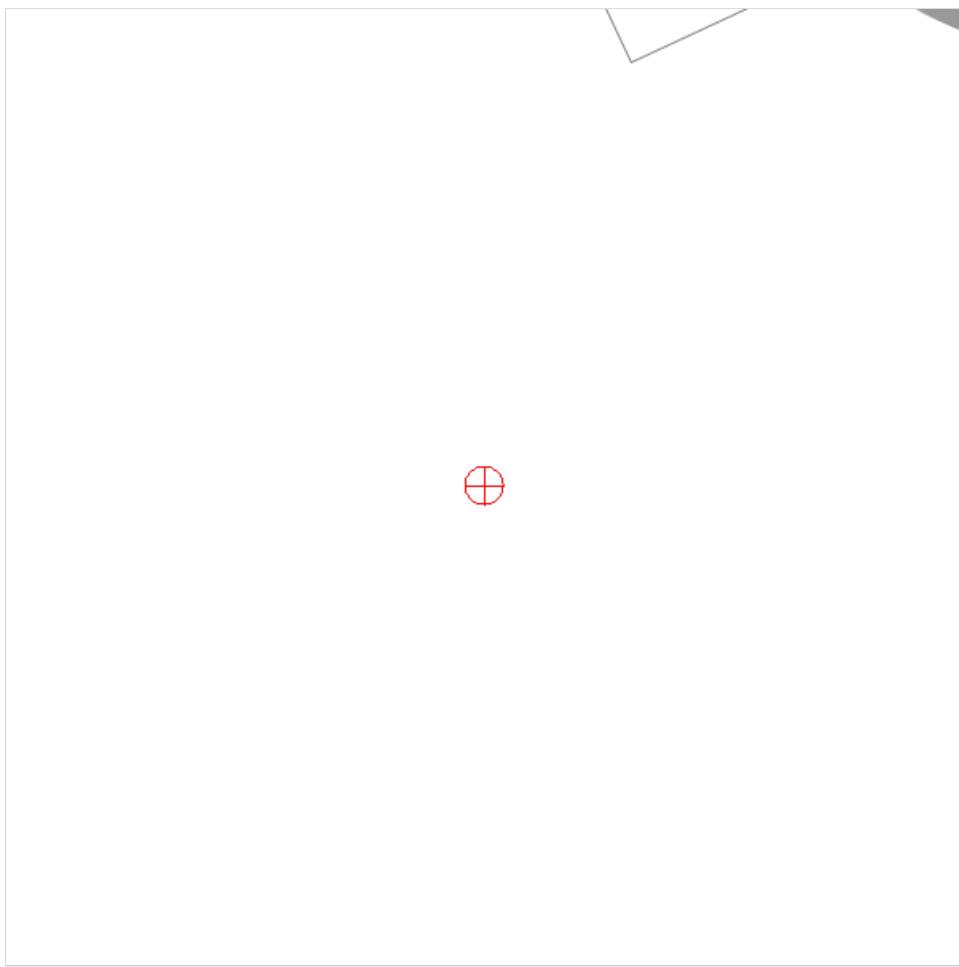
If you require additional information regarding the filing requirements for your structure, please identify and contact the appropriate FAA representative using the [Air Traffic Areas of Responsibility map](#) for Off Airport construction, or contact the [FAA Airports Region / District Office](#) for On Airport construction.

The tool below will assist in applying Part 77 Notice Criteria.

<b>Latitude:</b>	45	Deg	54	M	11.75	S	N <input type="button" value="▼"/>
<b>Longitude:</b>	118	Deg	35	M	21.06	S	W <input type="button" value="▼"/>
<b>Horizontal Datum:</b>	NAD83 <input type="button" value="▼"/>						
<b>Site Elevation (SE):</b>	2115 (nearest foot)						
<b>Structure Height :</b>	20 (nearest foot)						
<b>Traverseway:</b>	No Traverseway <input type="button" value="▼"/>						
<small>(Additional height is added to certain structures under 77.9(c)) User can increase the default height adjustment for Traverseway, Private Roadway and Waterway</small>							
<b>Is structure on airport:</b>	<input checked="" type="radio"/> No <input type="radio"/> Yes						

### Results

You do not exceed Notice Criteria.



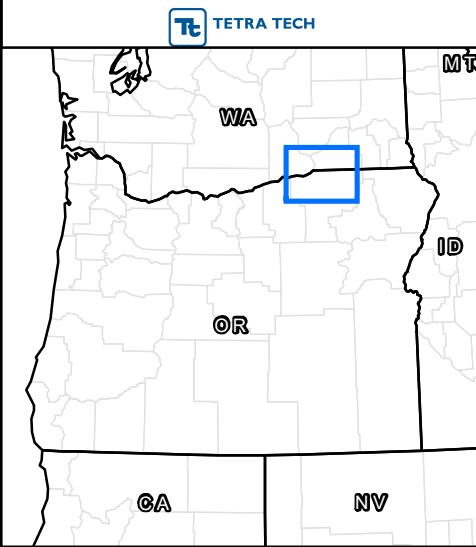
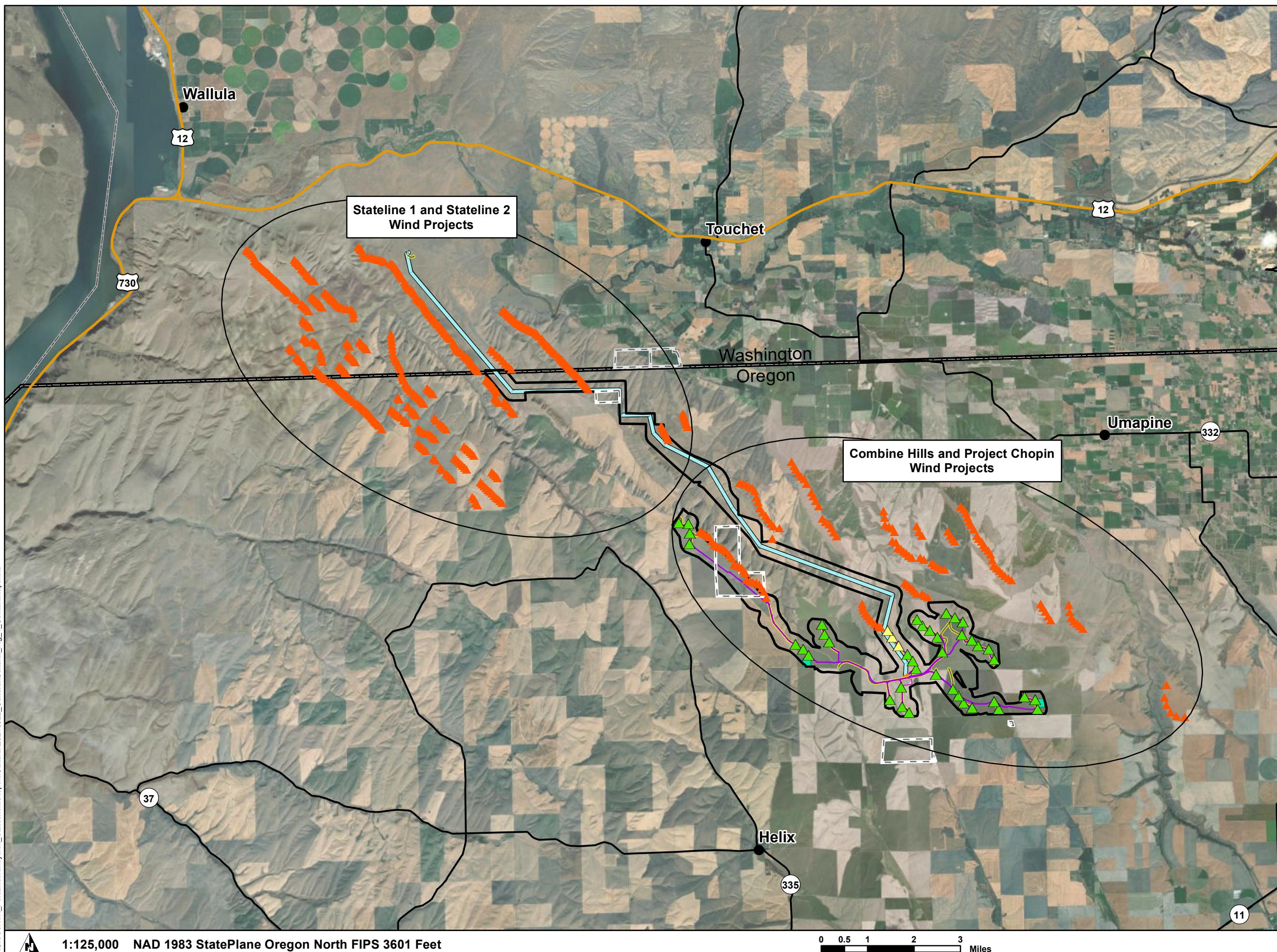
Stateline Wind Project  
Request for Amendment 6

Vansycle II

Figure 1  
Cultural Context

UMATILLA COUNTY, OR AND  
WALLA WALLA COUNTY, WA

- ▲ Existing Turbines (Repower)
- ▼ Replaced Turbines - Option A (11, 12, 13)
- ▲ Existing Turbine
- Project Boundary
- Met Tower
- Collection Line
- Service Road
- Substation
- Overhead Transmission Lines
- Selected Tax Lots
- Secondary Highway
- Secondary Road
- Laydown Area (RFA 6 -  
Temporary disturbance to  
previously approved area for  
construction staging)
- City/Town
- State Boundary
- County Boundary





# Our Energy Storage Business



# A Promising Future For Energy Storage

## Technology offers flexibility, value in today's energy market

Meeting today's energy challenges is complicated. The power infrastructure must be able to balance supply and demand instantaneously while taking into account the impacts of intermittent renewable energy. Consumers are also looking for energy services and products that provide flexibility and value in the areas of renewable energy, grid reliability and peaking power.

NextEra Energy Resources is helping meet these needs through battery energy storage technology, which is providing a promising way to store electrical energy so it can be available to meet demand whenever needed. While there are many energy storage technologies, NextEra Energy Resources has focused on the use of batteries as costs have declined, but is continuing to evaluate other storage technologies.

**“(Our) company expects to invest more than \$1 billion in storage in 2021, which would be the largest-ever annual battery storage investment by any power company in history.”**

*Jim Robo, Chairman and CEO, NextEra Energy,  
April 22, 2020*

## Energy storage delivers advantages to the power grid and our customers

What makes energy storage attractive is that it allows energy to be delivered instantly, in the required amount. By doing this, energy storage provides many advantages, such as improving the operation of the electrical grid, integrating renewable resources and helping investment decisions.

- » **Grid enhancement.** Energy storage can balance load on the power system grid by moving energy when demands are low to times when demands are high. The technology also allows for a seamless switch between power sources and protects equipment by controlling voltage and frequency.
- » **Renewable resources.** Energy storage fills in the gaps resulting from intermittent resources like wind and solar generation. That means operators can more easily bring on and off renewable energy, reducing the need for load balancing services and rapid generation ramping.
- » **Electrical system investments.** By reducing the load on congested transmission and distribution systems, energy storage may defer expensive upgrades. In some cases, storage may also reduce new investment in conventional resources, such as adding generating plants to meet systemwide peak load.



In 2018, NextEra Energy Resources' 20-megawatt (MW) Pinal Central Solar Energy Center in Arizona became the company's first project to pair solar energy with an on-site, state-of-the-art 10-MW battery storage system (shown in cover photo, lower right, February 2020). More than 50% of the company's new solar projects in 2019 also included a storage component. Renewable energy projects, coupled with battery storage, provide power to customers long after the sun goes down and demand for electricity goes up.



NextEra Energy Resources employees at the 16.2-MW Casco Bay Energy Storage Facility in Maine (April 2017). The company is developing additional energy storage facilities across North America.

## Projects require little land, provide many benefits

Energy storage projects do not require a large area for development, are scalable in size and can be located in many places. NextEra Energy Resources generally seeks to site a project as close as possible to existing electrical transmission or distribution infrastructure and often, close to an existing renewable project.

Other benefits of energy storage include no greenhouse gases or other air pollutants, no use of water to generate electricity, and a renewable supply of energy.

## Interest in energy storage is growing

The growing interest in energy storage is being driven by a number of factors, including:

- » Reductions in technology costs.
- » The rapid development of intermittent renewable energy resources.
- » The evaluation of new policy initiatives by states.
- » Regulatory changes.

For example, the Federal Energy Regulatory Commission has mandated policy changes in the frequency regulation market that have helped spur the use of energy storage for this purpose. Certain markets are now encouraging utilities to use energy storage to manage the intermittent energy that flows into the grid and to supply the grid with energy during times of peak use.

## Costs are expected to decline

While emerging technology costs tend to be higher and therefore less competitive during the early evolution phase, technological efficiencies, improved manufacturing productivity and economies of scale help lower cost over time. As batteries gain wider industry adoption, prices are expected to decrease further.

## Energy storage is safe, reliable

Safety is always a top priority in NextEra Energy Resources' operations, and energy storage systems are no exception.

Our energy storage systems are safe and reliable. Overall, energy storage has been a part of the U.S. electric system since the 1930s. Today, it makes up approximately 2% of the nation's generation capacity, according to the Energy Storage Association. The safety record of the industry is similar to or better than other forms of power generation or distribution.

## NextEra Energy Resources is experienced in energy storage

Our team of specialists has spent years researching energy storage technologies, applications and use cases, leading to two demonstration projects in 2012 and 2013.

Today, NextEra Energy Resources has more than 145 MW of operational energy storage, including the Lee DeKalb Energy Storage Facility in Illinois and the Blue Summit Energy Storage Facility in Texas. These facilities are being used for frequency regulation. Traditionally, fossil and hydroelectric power plants have been used for frequency regulation. Now, batteries can also accomplish this task more efficiently.

In addition to the growth of operational facilities, the company has a robust pipeline of development projects across the U.S. and Canada.



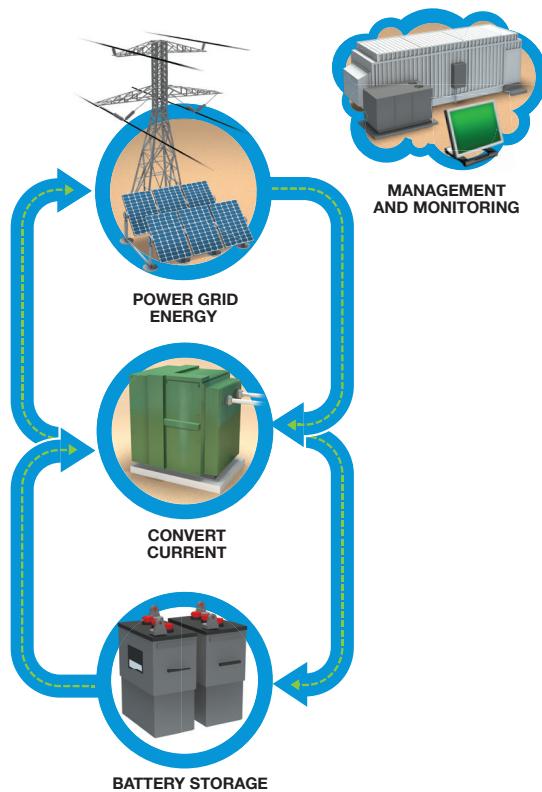
Batteries are placed into removable racks similar to a computer server. There are also monitoring, control and power conversion systems, as well as cooling and fire suppression systems.



NextEra Energy Resources' Minuteman Energy Storage Facility in Massachusetts went into service in 2019. It provides 5 MW of energy storage.

## How energy storage systems work

- » A battery management system monitors the individual cells and controls the voltage, temperature and current for safe, reliable transfer of energy. The system automatically shuts off if the batteries are operating outside of predefined parameters.
- » A computerized monitoring system provides up-to-date weather forecasts, power prices, historical electrical use, the amount of charge remaining in the batteries and when to use the energy storage system.
- » Energy from the power grid or from renewable energy sources is delivered via a bidirectional inverter, which converts the energy from alternating current (AC) into direct current (DC). Today's batteries can only store DC. This energy goes into an array of batteries that is typically housed within a battery container or a building structure.
- » When the energy is needed on the power system, the inverters are then used again, but this time to convert the DC from the batteries into AC. Once the power has been transformed, it is stepped up in voltage and subsequently sent to an on-site substation or directly to a distribution or transmission line.
- » The electricity is then distributed to homes, schools, businesses and other consumers.



## NextEra Energy Resources has a proven reputation for excellence

As the world's largest generator of renewable energy from the wind and the sun, NextEra Energy Resources has earned a reputation for excellence. Our scale, size and scope of services allow us to offer innovative energy solutions to customers, and energy storage is a natural extension of our development business.

By working with NextEra Energy Resources, customers can realize the monetary benefits of energy storage while mitigating technology complexity and vendor risk. With our significant purchasing power, we can buy energy storage equipment at the lowest possible costs. With our best-in-class development skills, we can also build customized storage solutions to meet customers' unique requirements.

Energy storage has the potential to be a game changer for the energy industry, and NextEra Energy Resources is a leader in the market.

[NextEraEnergyResources.com](http://NextEraEnergyResources.com)

NextEra Energy Resources, LLC | 700 Universe Boulevard | Juno Beach, Florida 33408

**NEXTERA<sup>®</sup>**  
**ENERGY**  
RESOURCES

**Gary Murdock**  
**Project Estimator/Electrical Estimator**

---

## PROFESSIONAL SUMMARY

---

### OFFICE

---

Site Pool

### EDUCATION

---

Technical & Trade Specific

### REGISTRATIONS/CERTIFICATIONS

---

### SELECTED PROJECT EXPERIENCE

---

#### **Electrical / Project Estimator 11/10/08 – Present**

##### **Tetra Tech EC**

Estimate types include electrical estimates for New Orleans flood control projects, electrical and communications distribution replacement at Camp Pendleton CA., Chevron Mine WWTP in Questa, N.M., building renovations at military facilities, utility scale solar energy generation facilities, electrical infrastructure for Afghanistan military facilities, mine reclamation, and sewage/water treatment facilities. Current duties include complete construction estimating in support of the DICCE – SLD program. Locations for DICCE projects are in undeveloped and developing countries. Projects are throughout Europe, South America, Africa, Asia, and the Middle East.

Extensive experience in the design and estimating installation cost for utility scale solar and wind energy generation facilities. Related experience includes full EPC cost development, design assistance, equipment and design evaluation.

Experienced with process plant equipment and MEP estimating.

Provide estimating support for US Government remediation projects.

Provide estimating support to all Tetra Tech business units as needed.

### PREVIOUS EXPERIENCE

---

#### **System Integrator, 2006-2008**

##### **Norris, Inc. South Portland, ME**

Systems Integrator

### Electrical Contractor/Estimator, 1980 – 2006

#### **J.L. Murdock & Co., Inc., Bristol, CT**

Commercial and industrial electrical contractor.

### REPRESENTATIVE PROJECTS

---

#### **Wheatridge Wind Energy**

Decommissioning of wind, solar & DC storage facilities

#### **Triple H Wind**

Decommissioning of wind energy generating facility

#### **Bakeoven Solar**

Decommissioning of solar energy generating facility

#### **Lund Hill Solar**

Decommissioning of solar energy generating facility

#### **Nolin Hills**

Decommissioning of wind energy generating facility

#### **Dominion Energy – California Portfolio**

Decommissioning of solar energy generating facilities

#### **Sangerfield Solar**

Decommissioning of solar energy generating facility

#### **Los Alamos National Laboratory**

Legacy cleanup project, soil & water remediation.

#### **Afghan National Army**

Barracks, support facilities and site utilities.

#### **SRP, Page Arizona**

Power Plant decommissioning.

#### **Naval Facility, Djibouti Africa**

Barracks, support facilities and site utilities

#### **Chevron Mining, Questa New Mexico**

Waste water treatment plant, site remediation.

#### **Rocky Mountain Arsenal, Colorado**

Waste water treatment plant.

#### **FFF Replacement, Military Installations**

Replace PFOA contaminated fire fighting foam at military facilities, CONUS & OCONUS

#### **US NNSA**

Nuclear material detection systems at ports and border crossings worldwide.

### **PROFESSIONAL BIOGRAPHY**

---

Mr. Murdock began his career in 1980 as an apprentice Electrician / Line worker. Prior to joining Tetra Tech as a project estimator in 2008, Mr. Murdock operated electrical and chemical fire suppression companies. During his time at Tetra Tech, work has been entirely focused on cost estimating. Projects and programs are varied and diverse, to include demolition, remediation, vertical construction, renewable energy, CONUS and OCONUS . Mr. Murdock's estimating skills are as diverse as the projects he works on, to include MEP, civil, concrete, process plant, demolition and building construction. Mr. Murdock has a proven track record of delivering accurate cost estimates for the variety of projects and programs served by Tetra Tech.

This attachment presents updated population, housing, traffic and transportation data relative to the proposed RFA 6 Facility modifications. Tables U-1, U-2, U-3, and U-4 from Exhibit U of RFA 5 were updated to reflect the 2020 census data (U.S. Census Bureau 2020), traffic counts from 2016 to 2020 (ODOT 2016, 2017, 2018, 2019, and 2020a) and 2020 pavement conditions (ODOT 2020b).

**Table U-1. Population by State, County, and Community in the Area of Influence**

Location	Population			2000-2010		2010-2020	
	Census 2000	Census 2010	Census 2020	Absolute Change	Percent Change	Absolute Change	Percent Change
<b>OREGON</b>	<b>3,421,399</b>	<b>3,831,074</b>	<b>4,237,256</b>	<b>409,675</b>	<b>12.0%</b>	<b>406,182</b>	<b>10.6%</b>
Umatilla County	70,548	75,889	80,075	5,341	7.6%	4,186	5.5%
Adams	297	350	389	53	17.8%	39	11.1%
Athena	1,221	1,126	1,209	-95	-7.8%	83	7.4%
Echo	650	699	632	49	7.5%	-67	-9.6%
Helix	183	184	194	1	0.5%	10	5.4%
Hermiston	13,154	16,745	19,354	3,591	27.3%	2,609	15.6%
Milton-Freewater	6,470	7,050	7,151	580	9.0%	101	1.4%
Pendleton	16,354	16,612	17,107	258	1.6%	495	3.0%
Pilot Rock	1,532	1,502	1,328	-30	-2.0%	-174	-11.6%
Stanfield	1,979	2,043	2,144	64	3.2%	101	4.9%
Weston	717	667	706	-50	-7.0%	39	5.8%
<b>WASHINGTON</b>	<b>5,894,143</b>	<b>6,724,540</b>	<b>7,705,281</b>	<b>830,397</b>	<b>14.1%</b>	<b>980,741</b>	<b>14.6%</b>
Walla Walla County	55,180	58,781	62,584	3,601	6.5%	3,803	6.5%
College Place	7,818	8,765	9,902	947	12.1%	1,137	13.0%
Prescott	314	318	372	4	1.3%	54	17.0%
Walla Walla	29,686	31,731	34,060	2,045	6.9%	2,329	7.3%
<b>Benton County</b>	<b>142,457</b>	<b>175,177</b>	<b>206,873</b>	<b>32,720</b>	<b>23.0%</b>	<b>31,696</b>	<b>18.1%</b>
Richland	38,708	48,058	60,560	9,350	24.2%	12,502	26.0%
Kennewick	54,693	73,917	83,921	19,224	35.1%	10,004	13.5%
<b>Franklin County</b>	<b>49,347</b>	<b>78,163</b>	<b>96,749</b>	<b>28,816</b>	<b>58.4%</b>	<b>18,586</b>	<b>23.8%</b>
Pasco	32,066	59,781	77,108	27,715	86.4%	17,327	29.0%

Sources: U.S. Census Bureau 2010; U.S. Census Bureau 2020

1. It should be noted that while Touchet, Washington is within the public services Analysis Area and it is a census designated place, it does not have a consistent record of census data, and is therefore not included in this or other tables to support the public services analysis.

**Table U-2. Housing Supply in Counties and Communities within the Area of Influence**

<b>Location</b>	<b>Total Housing Units</b>		<b>Average Annual Growth Rate</b>	<b>Vacancy Rate</b>
	<b>2010</b>	<b>2020</b>	<b>2010-2020</b>	<b>2020</b>
OREGON	1,675,562	1,813,747	0.8%	7.8%
<b>Umatilla</b>	<b>29,693</b>	<b>31,098</b>	<b>0.5%</b>	<b>8.8%</b>
Adams	141	166	1.6%	4.8%
Athena	484	548	1.2%	5.5%
Echo	256	277	0.8%	8.7%
Helix	68	77	1.3%	22.1%
Hermiston	6,373	6,962	0.9%	4.4%
Milton-Freewater	2,742	2,724	-0.07%	7.3%
Pendleton	6,800	6,938	0.2%	7.7%
Pilot Rock	649	620	-0.5%	7.7%
Stanfield	735	800	0.9%	3.5%
Weston	271	307	1.3%	10.1%
<b>WASHINGTON</b>	<b>2,885,677</b>	<b>3,202,241</b>	<b>1.0%</b>	<b>7.1%</b>
<b>Walla Walla</b>	<b>23,451</b>	<b>24,971</b>	<b>0.6%</b>	<b>7.6%</b>
College Place	3,764	4,176	1.0%	10.2%
Prescott	156	152	-0.3%	8.6%
Walla Walla	12,514	13,571	0.8%	7.1%
<b>Benton</b>	<b>68,618</b>	<b>80,076</b>	<b>1.6%</b>	<b>4.6%</b>
Richland	20,876	25,524	2.0%	4.7%
Kennewick	28,507	32,242	1.2%	4.6%
<b>Franklin</b>	<b>24,423</b>	<b>29,740</b>	<b>2.0%</b>	<b>3.3%</b>
Pasco	18,782	24,334	2.6%	2.8%

Sources: U.S. Census Bureau 2010; U.S. Census Bureau 2020

**Table U-3. Oregon State Highway Annual Average Daily Traffic Volumes**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
I-84 (No. 6)	0.30 miles east of Pendleton-John Day Highway (US 395), Emigrant Avenue Interchange	209.84	16,600	16,400	17,200	17,300	15,227	-8.3%
I-84 (No. 6)	0.40 miles east of Oregon-Washington Highway (OR 11), South Pendleton Interchange	211.36	14,000	13,900	14,800	14,900	13,736	-1.9%
I-84 (No. 6)	0.40 miles southeast of Pendleton Highway (US 30), East Pendleton Interchange	213.45	15,500	15,200	16,100	16,200	15,025	-3.1%
I-84 (No. 6)	Mission Jct. Automatic Traffic Recorder, Sta. 30-026, 0.76 miles southeast of Umatilla-Mission Highway No. 331 Interchange	216.81	11,500	11,300	11,800	12,000	10,850	-5.7%
I-84 (No. 6)	0.50 miles west of Deadman's Pass Interchange	228.44	11,300	11,200	11,700	11,900	10,772	-4.7%
I-84 (No. 6)	0.50 miles west of West Emigrant Park Interchange	233.45	11,100	11,100	11,700	11,800	10,862	-2.1%
I-84 (No. 6)	0.50 miles west of East Emigrant Park Interchange	234.55	10,900	10,900	11,500	11,600	10,706	-1.8%
I-84 (No. 6)	0.50 miles west of Meacham Interchange	238.27	10,900	11,000	11,500	11,600	10,785	-1.1%
I-84 (No. 6)	0.50 miles east of Meacham Interchange	239.27	11,100	11,000	11,500	11,600	10,798	-2.7%
I-84 (No. 6)	0.30 miles east of Kamela-Mt. Emily Road Interchange	244.12	10,900	11,000	11,500	11,600	10,822	-0.7%
OR 11 (No. 8)	0.40 miles north of Old Oregon Trail (I-84)	-1.37	6,200	6,100	6,300	3,200	3,133	-49.5%
OR 11 (No. 8)	0.10 miles north of Isaac Avenue	-1.09	4,000	3,900	4,100	5,000	4,830	20.8%
OR 11 (No. 8)	0.02 miles east of 9th street	-0.75	4,700	4,600	4,700	5,700	5,527	17.6%

**Attachment 9: Public Services: Population, Housing, and Transportation Tables**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
OR 11 (No. 8)	East of SE 16th Street [0.02 miles]	-0.33	11,000	11,000	11,300	11,300	10,966	-0.3%
OR 11 (No. 8)	0.25 miles northeast of Pendleton Highway (US 30)	0.25	6,800	6,700	6,900	6,600	6,436	-5.4%
OR 11 (No. 8)	0.02 miles northeast of Riverside Drive	0.35	4,600	4,500	4,600	4,400	4,280	-7.0%
OR 11 (No. 8)	0.02 miles northeast of Lindell Lane	0.48	4,500	4,400	4,500	4,200	4,079	-9.4%
OR 11 (No. 8)	0.06 miles northeast of Riverside School Road	0.77	3,700	3,600	3,700	3,600	3,494	-5.6%
OR 11 (No. 8)	0.10 miles southwest of Havana-Helix Highway	6.09	5,200	5,100	5,300	4,900	4,795	-7.8%
OR 11 (No. 8)	0.02 miles northeast of Havana-Helix Highway	6.21	4,800	4,700	4,900	4,800	4,700	-2.1%
OR 11 (No. 8)	0.08 miles south of Mann Road	11.56	4,400	4,400	4,500	4,000	3,843	-12.7%
OR 11 (No. 8)	East city limits of Adams	12.14	4,200	4,200	4,300	4,300	4,137	-1.5%
OR 11 (No. 8)	0.02 miles west of Pamburn Road	16.05	4,300	4,200	4,300	4,500	4,341	1.0%
OR 11 (No. 8)	0.05 miles south of Athena-Holdman Highway	17.27	3,300	3,200	3,300	3,200	3,117	-5.5%
OR 11 (No. 8)	0.05 miles north of Athena-Holdman Highway	17.37	4,100	4,000	4,200	3,900	3,777	-7.9%
OR 11 (No. 8)	0.22 miles southwest of Weston-Elgin Highway (OR 204)	20.23	4,000	3,900	4,000	3,700	3,587	-10.3%
OR 11 (No. 8)	0.20 miles northeast of Weston-Elgin Highway (OR 204)	20.65	4,600	4,500	4,700	4,600	4,436	-3.6%
OR 11 (No. 8)	0.02 miles northeast of Steen Road (old highway alignment)	21.77	5,100	5,100	5,200	5,200	5,041	-1.2%

**Attachment 9: Public Services: Population, Housing, and Transportation Tables**

<b>Highway</b>	<b>Location</b>	<b>Milepost</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Percent Change 2016-2020</b>
OR 11 (No. 8)	0.02 miles north of Blue Mt. Station Road	23.47	4,900	4,900	5,000	5,000	4,887	-0.3%
OR 11 (No. 8)	0.39 miles north of Steen Road	26.59	5,500	5,500	5,600	4,900	4,725	-14.1%
OR 11 (No. 8)	0.02 miles north of S.E. 14th Avenue	26.9	8,100	8,000	8,200	7,000	6,842	-15.5%
OR 11 (No. 8)	0.02 miles south of Freewater Highway (S. Main Street)	30.57	12,200	12,100	12,400	11,700	11,327	-7.2%
OR 11 (No. 8)	0.03 miles north of Freewater Highway (S. Main Street)	30.65	11,000	10,900	11,200	10,400	10,131	-7.9%
OR 11 (No. 8)	0.02 miles south of N.E. 5th Avenue	31.18	11,500	11,300	11,700	10,700	10,374	-9.8%
OR 11 (No. 8)	0.02 miles north of N.E. 5th Avenue	31.22	10,700	10,600	10,900	10,200	9,895	-7.5%
OR 11 (No. 8)	0.28 miles south of Elizabeth Street	31.64	11,900	11,800	12,200	8,600	8,390	-29.5%
OR 11 (No. 8)	0.02 miles south of Sunnyside-Umapine Highway	32.62	13,200	13,100	13,500	11,200	10,868	-17.7%
OR 11 (No. 8)	0.02 miles north of Sunnyside-Umapine Highway	32.66	12,700	12,600	12,900	12,300	11,918	-6.2%
OR 11 (No. 8)	Milton Automatic Traffic Recorder, Sta. 30-021, 0.86 miles south of Oregon-Washington State	34.46	15,400	15,200	15,700	15,300	14,102	-8.4%
OR 11 (No. 8)	0.02 miles south of State Line Road, Oregon-Washington State Line	35.3	13,600	13,400	13,800	13,600	13,175	-3.1%

Sources: ODOT 2016; ODOT 2017; ODOT 2018; ODOT 2019; ODOT 2020a

**Table U-4. Oregon State Highway Pavement Conditions**

<b>Roadway</b>	<b>Approximate Milepost</b>	<b>Pavement Condition</b>
I-84 (No. 6)	180 to 185	Fair
I-84 (No. 6)	185 to 188	Fair <sup>1</sup>
I-84 (No. 6)	188 to 204	Fair
I-84 (No. 6)	204 to 213	Very Good
I-84 (No. 6)	213 to 218	Good
I-84 (No. 6)	218 to 238	Good
OR 11 (No. 8)	0 to 4	Fair
OR 11 (No. 8)	4 to 20	Very Good
OR 11 (No. 8)	20 to 27	Good
OR 11 (No. 8)	27 to 35	Fair

Source: ODOT 2020b

1. As of May 17, 2021, this section of I-84 is planned for construction in 2024 (ODOT 2021). Design has begun and the construction project is anticipated to be open for bids in January 2024.

**References:**

ODOT (Oregon Department of Transportation). 2016. Traffic Volumes on State Highways. 2016. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2017. Traffic Volumes on State Highways. 2017. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2018. Traffic Volumes on State Highways. 2018. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2019. Traffic Volumes on State Highways. 2019. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020a. Traffic Volumes on State Highways. 2020. Available online at: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>

ODOT. 2020b. 2020 Pavement Condition Report. Pavement Services Unit. January 2021. Accessed October 18, 2021. Available online at: [https://www.oregon.gov/odot/Construction/Documents/Pavement/2020\\_condition\\_report\\_maps.pdf](https://www.oregon.gov/odot/Construction/Documents/Pavement/2020_condition_report_maps.pdf)

ODOT. 2021. Region 5 Eastern Oregon. I-84: Stanfield to Pendleton Pavement Preservation. Accessed October 18, 2021. Available online at: <https://www.oregon.gov/odot/projects/pages/project-details.aspx?project=20548>

U.S. Census Bureau. 2010. American Fact Finder. Accessed October 18, 2021. Available online at: <https://data.census.gov/cedsci/all>

U.S. Census Bureau. 2020. Decennial Census. Accessed October 18, 2021. Available online at: <https://data.census.gov/cedsci/all>



---

**To:** NextEra

**Cc:** Carrie Konkol

**From:** Tricia Pellerin and Tiffanie Ramos, Tetra Tech

**Date:** September 20, 2021

**Subject:** Request for Additional Information (RAI) for Vansycle II Wind Project – Acoustic Assessment

---

**RAI-12 – Provide an analysis of construction and operational noise, in dBA, of all noise generating equipment proposed in pRFA6. Include actual construction noise level, actual/incremental increase in operational noise level, and analysis of noise impacts at nearest protected area.**

**Comment:** *pRFA6 Section 6.1.6 Protected Areas does not address potential noise impacts during construction and operation of changes proposed in pRFA6.*

**Response:** An acoustic analysis has been completed in support of the Request for Amendment (RFA) #6 for the Vansycle II Wind Project. Using CadnaA and the same methodology as that used for RFA #5, three different wind turbine layout options were evaluated consisting of the following:

1. **Option A:** Turbine IDs 11, 12, and 13 will be converted GE 2.3-116 and the remaining 40 turbines will be repowered as Siemens 2.66-129.
2. **Option B:** Addition of two new GE turbines (at previously approved ALT-1 and ALT-2 turbine locations) and conversion of existing Turbine ID 11 to GE 2.3-116, and repowering of 42 turbines to Siemens 2.66-129 wind turbine models; and
3. **Proposed (Base Case):** Repowering of 43 Siemens turbines to 2.66-129 wind turbine models.

The construction noise analysis is discussed in the response to RAI-18. The operational noise analysis is discussed in the response to RAI-19.

Protected areas in the vicinity of the Project are summarized in Table 1. The nearest protected area to Project sound sources is the McDonald Bridge Wildlife Area, located 13.4 km to the north. At this distance, both construction and operational sound would attenuate such that there would be no perceptible noise impact.

**Table 1. Protected Areas in the Vicinity of Project Sound Sources**

<b>Protected Area</b>	<b>Distance to Nearest Project Sound Source (km)</b>
1 McDonald Bridge Wildlife Area	13.4
2 Whitman Mission National Historic Site	14.3
3 McNary National Wildlife Refuge	16.6
4 Columbia Basin Agriculture Research Center	19.2
5 Oregon Trail National Historic Trail	25.1
6 South Fork Walla Walla River Area of Critical Environmental Concern	27.0
7 North Fork Umatilla Wilderness	28.6
8 Cold Springs National Wildlife Refuge	33.8
9 Hat Rock State Park	35.2
10 Columbia Plateau State Trail	36.4
11 Sacajawea State Park	38.5

**RAI-18 – Provide a construction noise analysis. Include the number and type of noise-generating construction equipment necessary for repowering, under Base Case, Option A and Option B, and battery storage, along with dBA noise levels to evaluate maximum construction related noise.**

**Comment: pRFA6 Section 6.3.1 Noise Control Regulation states, “As reviewed by the Council in RFA 5, upgrading would produce localized, short-duration noise levels similar to those produced by any large construction project with heavy construction equipment.” An evaluation of construction noise is required.**

**Response:**

A construction noise analysis was completed for the Project, analyzing anticipated construction activities associated with the Proposed (Base Case), Option A and Option B, and battery storage. It is expected that the type of construction equipment, number of equipment and usage will be consistent for the different Project site layout configurations under consideration.

Acoustic emission levels for activities associated with Project construction were based upon typical ranges of energy equivalent noise levels at construction sites, as documented by the United States Environmental Protection Agency (EPA; 1971b) and the EPA’s “Construction Noise Control Technology Initiatives” (EPA 1980). The EPA methodology distinguishes between type of construction and construction stage. Using those energy equivalent noise levels as input to a basic propagation model, construction noise levels were calculated at a series of set reference distances.

The basic model assumed spherical wave divergence from a point source located at the closest point of the Project site. Furthermore, the model conservatively assumed that all pieces of construction equipment associated with an activity would operate simultaneously for the duration of that activity. An additional level of conservatism was built into the construction noise model by excluding potential shielding effects due to intervening structures and buildings along the propagation path from the site to receiver locations.

Table 2 summarizes the expected maximum equipment to be used during Project construction for each layout option and phase, including Option A, Option B, Proposed (Base Case), and Battery Storage. Table 2 also shows the maximum noise level at 50 ft and the usage factor percentage for the expected equipment phases.

**Table 2. Projected Construction Noise Levels by Phase (dBA L<sub>eq</sub>)**

Option	Layout / Phase	Construction Equipment	Usage Factor %	Maximum (L <sub>max</sub> ) Equipment Noise Level at 50 ft	Composite L <sub>eq</sub> Noise Level				
					100 ft	200 ft	500 ft	1,000 ft	2,000 ft
1	Option A	(2) Backhoe	55						
		(1) Concrete Truck	50						
		(1) Crane	43						
		(1) Excavators	57						
		(2) Forklifts	30	100	89	83	75	69	63
		(1) Generators	74						
		(2) Graders	57						
		(5) Haul Trucks	16						
		(1) Water Trucks	50						

**Table 2. Projected Construction Noise Levels by Phase (dBA L<sub>eq</sub>)**

Option	Layout / Phase	Construction Equipment	Usage Factor %	Maximum (L <sub>max</sub> ) Equipment Noise Level at 50 ft	Composite L <sub>eq</sub> Noise Level				
					100 ft	200 ft	500 ft	1,000 ft	2,000 ft
2	Option B	(2) Backhoe	55						
		(1) Concrete Truck	50						
		(1) Crane	43						
		(1) Excavators	57						
		(2) Forklifts	30	100	89	83	75	69	63
		(1) Generators	74						
		(2) Graders	57						
3	Proposed (Base Case)	(5) Haul Trucks	16						
		(1) Water Trucks	50						
		(1) Crane	43						
		(2) Forklifts	30						
		(1) Generators	74	99	87	81	73	67	61
		(1) Graders	57						
4	Battery Storage	(4) Haul Trucks	16						
		(1) Water Trucks	50						
		(2) Backhoe	55						
		(1) Concrete Truck	50						
		(1) Excavators	57						
		(1) Generators	74						
		(2) Graders	57	100	88	82	74	68	62
		(5) Haul Trucks	16						

The construction of the Project may cause short-term, but unavoidable, noise impacts that could be loud enough at times to temporarily interfere with speech communication outdoors and indoors with windows open. Noise levels resulting from the construction activities would vary significantly depending on several factors such as the type and age of equipment, specific equipment manufacturer and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers.

Project construction would generally occur during the day, Monday through Friday. Furthermore, all reasonable efforts would be made to minimize the impact of noise resulting from construction activities including implementation of standard noise reduction measures. Due to the infrequent nature of loud construction activities at the site, the limited hours of construction and the implementation of noise mitigation measures, the temporary increase in noise due to construction is considered to be a less than significant impact.

**RAI-19 – Provide an operational noise analysis inclusive of noise contour maps with NSR location and a table identifying RFA6 dBA noise levels at each NSR, and distance from noise source to NSR. Identify noise level, dBA, for all RFA6 noise generating equipment, with source or citation for noise level and demonstrate that the modeling accounts for maximum noise level of repowered turbines with battery storage.**

**Comment: pRFA6 Section 6.3.1 Noise Control Regulation describes the outcome of a noise analysis, but does not provide any data to support review of the analysis and appears to separate the analysis for repowered turbines and battery storage. There are no details provided about the dBA noise level for any battery storage components.**

**Response:**

Reference sound power levels input to Cadna-A were provided by equipment manufacturers, based on information contained in reference documents or developed using empirical methods. The source levels used in the predictive modeling are based on estimated sound power levels that are generally deemed to be conservative. The projected operational noise levels are based on Applicant-supplied sound power level data for the major sources of equipment. Table 3 summarizes the sound power data for both the SG 2.66-129 and GE 2.3-116 wind turbines by octave band center frequency for operation at maximum rotation. The proposed battery storage area sound sources were incorporated into the acoustic modeling analysis shown in Table 4.

**Table 3. Wind Turbine Broadband Sound Power Level by Octave Band Frequency**

Wind Turbine	K-Factor	Octave Band Sound Power Level (dBA) by Frequency (Hz)									Broadband (dBA)
		63	125	250	500	1000	2000	4000	8000		
GE 2.3-116	2	84	90	95	98	98	92	81	53	108	
SG 2.66-129	2	89	95	97	101	105	105	100	92	110	

Source: GE and SG manufacturer specifications.

**Table 4. Battery Storage Area Sound Source Information**

Noise Sources	Octave Band Sound Power Level by Frequency (Hz) dBA									Broadband (dBA)
	31.5	63	125	250	500	1000	2000	4000	8000	
Inverter	70	78	85	86	85	82	77	70	63	91
Distribution Transformer	28	47	60	62	67	65	61	56	47	71
Battery Storage HVAC Unit	82	79	76	74	72	68	65	60	54	74

Source: SMA Solar Technology test results for solar central inverter for large-scale PV (2019); Bard Air Conditioner manufacturer specification (2017).

Acoustic modeling results for each of the three wind turbine layout options operating in conjunction with the battery storage area are presented in Table 5. Additionally, Table 5 includes the distance between each NSR and the nearest sound source. As shown in Table 5, modeling results demonstrate compliance with the ODEQ 50 dBA L50 limit at all NSRs; however, there are five potential exceedances of the OAR ambient degradation standard (NSR IDs 21, 23, 33, 35, and 37). Noise waivers have been secured for four of those predicted exceedances (NSR IDs 21, 23, 33, and 35); therefore, they are considered Project participants and demonstration of compliance with the ambient degradation standard is not required. NSR ID 37 appears to

be a non-participant; therefore, a noise waiver will be obtained or a layout that complies with the standard will be developed during preconstruction compliance to address the predicted exceedance of the OAR ambient degradation standard at that location.

Sound contour plots displaying broadband (dBA) sound levels presented as color-coded isopleths are provided in Figures 1, 2, and 3 for layout Options A, B, and C, respectively. The sound contours are graphical representations of the cumulative noise associated with full operation of the equipment, including wind turbines and battery storage, and show how operational noise would be distributed over the surrounding area of the Project site.

**RAI-20 – Provide updated list of names and address of all owners of noise sensitive properties.**

**Response:**

Owner names and addresses of all NSRs are provided in Table 5.



Table 5. Modeled Project Sound Levels Plus Existing Ambient and Ambient Degradation

NSR ID	Residence Status	Participation Status	UTM Coordinates (meters)		Maximum Project Sound Levels Plus 26 dBA Existing Ambient (dBA)			Increase Above Existing Ambient (dBA)			Distance to Nearest Sound Source (km)	Owner Name(s)	Owner Address
			Easting	Northing	Option A	Option B	Base Case	Option A	Option B	Base Case			
1	Residence	Non-participant	378145	5090872	30	30	30	4	4	4	4.3	GABRIEL DAVID G	81070 VANSYCLE RD, HELIX, OR 97835
2	Unknown	Non-participant	378372	5090898	28	29	28	2	3	2	4.3	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
5	Unknown	Non-participant	381005	5090103	28	28	28	2	2	2	4.4	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
6	Residence	Non-participant	381006	5090677	28	28	28	2	2	2	4.9	BRACHER CLIFFORD C & JUDY K	PO BOX 369, HELIX, OR 97835-0369
7	Residence	Non-participant	381083	5090255	29	29	29	3	3	3	4.6	FROESE ALAN L & CHRIS	81310 GERKING FLAT RD, ATHENA, OR 97813-6008
8	Residence	Non-participant	382193	5089865	28	28	28	2	2	2	5.0	SUNNY COVE RANCHES INC	80768 GERKING FLAT RD, ATHENA, OR 97813-6008
9	Residence	Non-participant	368019	5088201	31	31	31	5	5	5	1.8	FROESE PAUL W (ESTATE)	329 W LINCOLN ST, ATHENA, OR 97813-6044
10	Residence	Non-participant	368255	5088453	36	36	36	10	10	10	1.5	CANNON DAVID D	PO BOX 359, ATHENA, OR 97813-0359
11	Residence	Non-participant	371226	5087527	34	34	34	8	8	8	2.5	CRAWFORD THOMAS M	PO BOX 403, HELIX, OR 97835-0403
13	Residence	Non-participant	368800	5086811	29	29	29	3	3	3	2.6	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
15	Residence	Non-participant	369056	5085958	29	29	29	3	3	3	3.4	TERJESON PATRICIA G & KIRK (TRS)	209 NW 9TH ST, PENDLETON, OR 97801-1557
16	Residence	Non-participant	369601	5085198	29	29	29	3	3	3	3.4	BEUCLER TERRY C & MARGARET E	85102 BUTLER GRADE RD, MILTON FREEWATER, OR 97862-6818
18	Residence	Non-participant	369274	5084451	28	28	28	2	2	2	3.9	HARLOW ERIC JT & KATIE A	85080 BUTLER GRADE RD, MILTON FREEWATER, OR 97862
19	Residence	Non-participant	370805	5084030	30	30	29	4	4	3	2.7	SCHUBERT JAMES D	1020 MERCITA DR, WALLA WALLA, WA 99362
20	Residence	Non-participant	371444	5083342	31	31	31	5	5	5	2.8	BURLINGAME EDWARD C	48610 STATELINE RD, MILTON FREEWATER, OR 97862
21	Residence	Participant	377482	5083925	49	49	49	23	23	23	0.6	DERUWE SHANE K	85021 HUDSON BAY RD, MILTON FREEWATER, OR 97862-6994
23	Residence	Participant	380292	5082683	46	46	46	20	20	20	0.7	GABRIEL DAVID G	81070 VANSYCLE RD, HELIX, OR 97835

NSR ID	Residence Status	Participation Status	UTM Coordinates (meters)		Maximum Project Sound Levels Plus 26 dBA Existing Ambient (dBA)			Increase Above Existing Ambient (dBA)			Distance to Nearest Sound Source (km)	Owner Name(s)	Owner Address
			Easting	Northing	Option A	Option B	Base Case	Option A	Option B	Base Case			
26	Residence	Non-participant	369609	5082023	27	27	27	1	1	1	5.0	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
27	Residence	Non-participant	369729	5081718	27	27	27	1	1	1	5.1	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
28	Residence	Non-participant	369886	5081385	27	27	27	1	1	1	5.3	BRACHER CLIFFORD C & JUDY K	PO BOX 369, HELIX, OR 97835-0369
29	Residence	Non-participant	370298	5081005	27	27	27	1	1	1	5.3	FROESE ALAN L & CHRIS	81310 GERKING FLAT RD, ATHENA, OR 97813-6008
30	Residence	Non-participant	371063	5080221	27	27	27	1	1	1	5.6	SUNNY COVE RANCHES INC	80768 GERKING FLAT RD, ATHENA, OR 97813-6008
33	Residence	Participant	377264	5082302	42	42	42	16	16	16	1.0	FROESE PAUL W (ESTATE)	329 W LINCOLN ST, ATHENA, OR 97813-6044
35	Residence	Participant	377462	5081965	38	38	38	12	12	12	1.4	CANNON DAVID D	PO BOX 359, ATHENA, OR 97813-0359
37	Residence	Non-participant	377560	5081600	37	37	37	11	11	11	1.9	CRAWFORD THOMAS M	PO BOX 403, HELIX, OR 97835-0403
40	Residence	Non-participant	377877	5080518	33	33	33	7	7	7	2.9	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
41	Residence	Non-participant	370474	5084213	29	29	29	3	3	3	2.9	TERJESON PATRICIA G & KIRK (TRS)	209 NW 9TH ST, PENDLETON, OR 97801-1557
42	Residence	Non-participant	369891	5081541	27	27	27	1	1	1	5.2	BEUCLER TERRY C & MARGARET E	85102 BUTLER GRADE RD, MILTON FREEWATER, OR 97862-6818
43	Residence	Non-participant	368862	5086051	29	29	29	3	3	3	3.4	HARLOW ERIC JT & KATIE A	85080 BUTLER GRADE RD, MILTON FREEWATER, OR 97862
44	Probable Residence	Non-participant	371687	5094609	27	27	27	1	1	1	5.1	SCHUBERT JAMES D	1020 MERCITA DR, WALLA WALLA, WA 99362
45	Probable Residence	Non-participant	371987	5094202	27	27	27	1	1	1	4.9	BURLINGAME EDWARD C	48610 STATELINE RD, MILTON FREEWATER, OR 97862
46	Probable Residence	Non-participant	372459	5094260	27	27	27	1	1	1	5.2	DERUWE SHANE K	85021 HUDSON BAY RD, MILTON FREEWATER, OR 97862-6994
47	Probable Residence	Non-participant	374036	5095410	26	26	26	0	0	0	7.0	GABRIEL DAVID G	81070 VANSYCLE RD, HELIX, OR 97835
48	Probable Residence	Non-participant	373428	5095446	27	27	27	1	1	1	6.7	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
49	Probable Residence	Non-participant	380719	5091268	28	28	28	2	2	2	5.3	BERG CALISTA	80974 VANSYCLE RD, HELIX, OR 97835-4030
50	Probable Residence	Non-participant	382103	5091577	28	28	28	2	2	2	6.3	BRACHER CLIFFORD C & JUDY K	PO BOX 369, HELIX, OR 97835-0369
51	Probable Residence	Non-participant	367870	5085244	28	28	28	2	2	2	4.4	FROESE ALAN L & CHRIS	81310 GERKING FLAT RD, ATHENA, OR 97813-6008

Stateline Wind Project  
Request for Amendment 6

Vansycle II  
**NEXTera**  
ENERGY  
RESOURCES

Figure 1  
Operational Received Sound  
Levels, Wind Turbines at Maximum  
Rotational Wind Speed  
Layout Option A

UMATILLA, OR

- Project Boundary
- Option A Turbines
- Noise Sensitive Receptor
- Substation
- Battery Storage

Sound Level Contour Range (dBA):

- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- >= 50

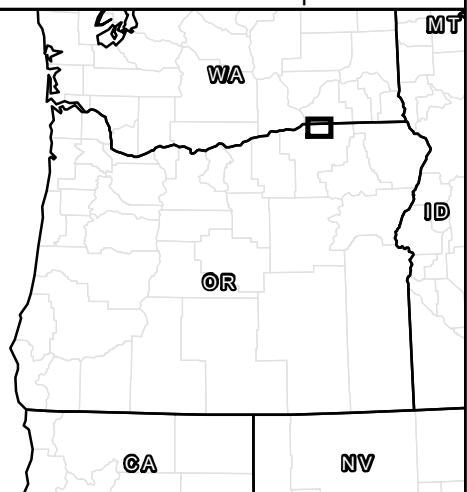


0 1.5 Miles  
1:100,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Intl

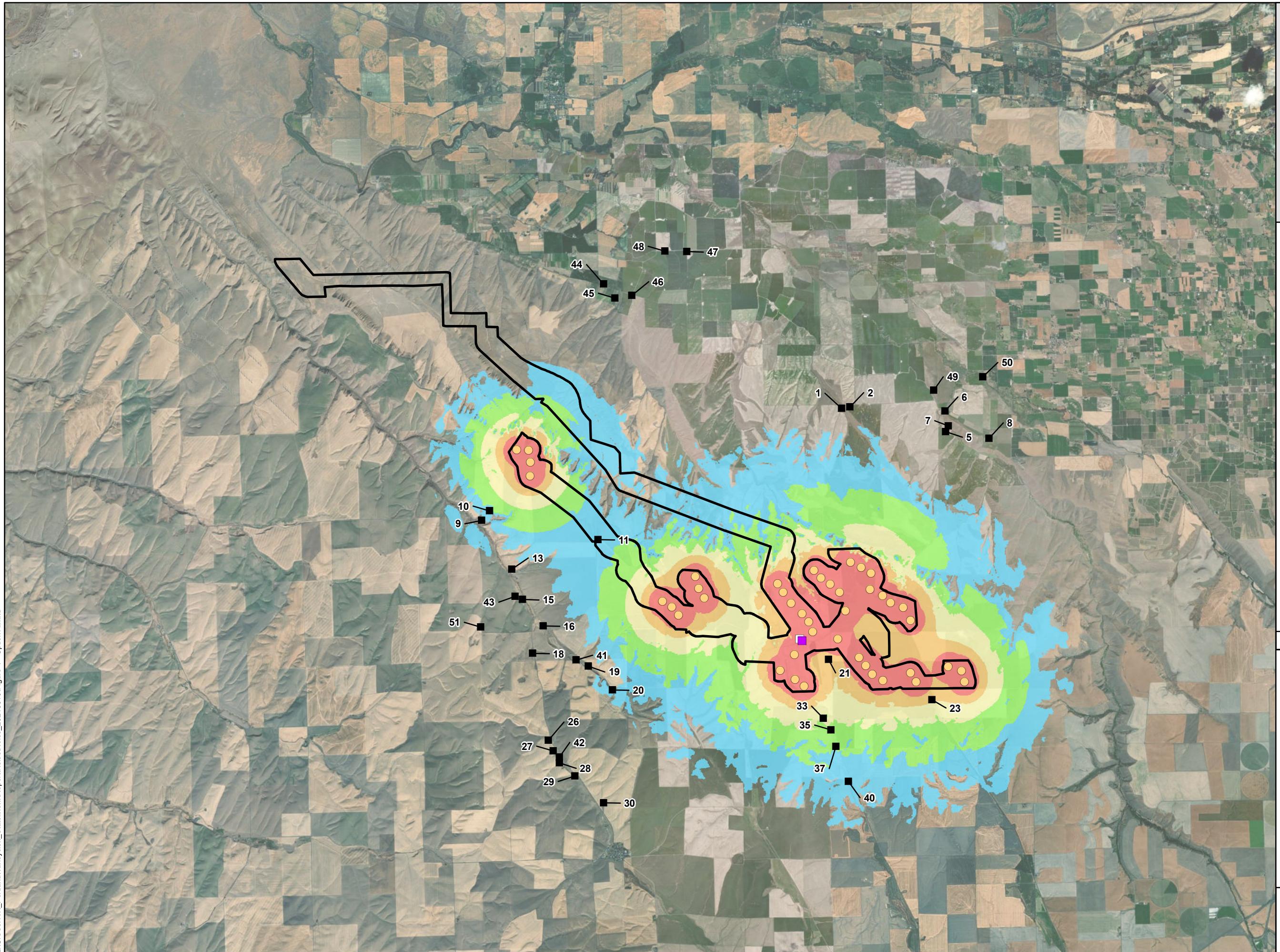
TETRA TECH

Reference Map



Data Sources: ESRI Streetmap, Oregon  
State Historic Preservation Office

Not for Construction



Stateline Wind Project  
Request for Amendment 6

Vansycle II  
**NEXTera**  
ENERGY  
RESOURCES

Figure 2  
Operational Received Sound  
Levels, Wind Turbines at Maximum  
Rotational Wind Speed  
Layout Option B

UMATILLA, OR

- Project Boundary
- Option B Turbines
- Noise Sensitive Receptor
- Substation
- Battery Storage

Sound Level Contour Range (dBA):

- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- >= 50

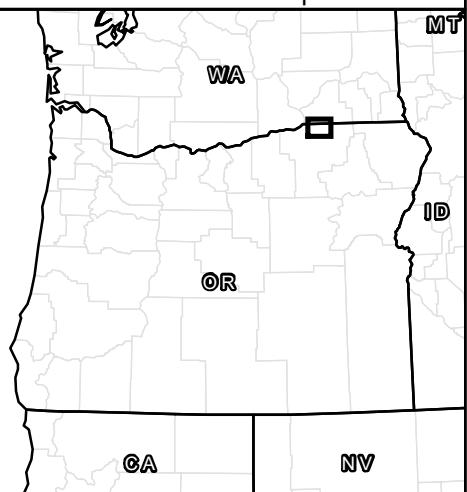


0 1.5 Miles  
1:100,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l

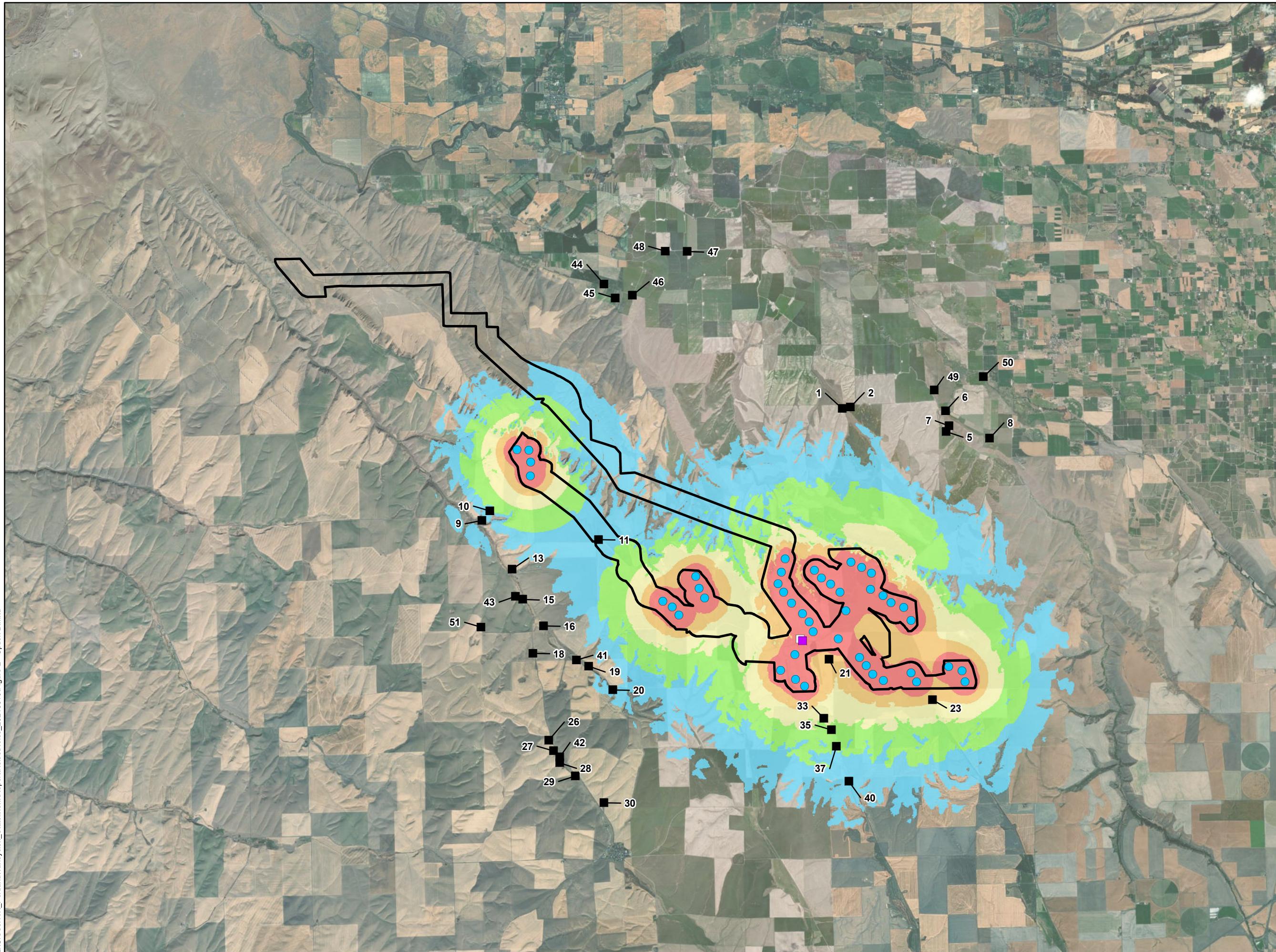
TETRA TECH

Reference Map



Data Sources: ESRI Streetmap, Oregon  
State Historic Preservation Office

Not for Construction



Stateline Wind Project  
Request for Amendment 6

Vansycle II  
**NEXTera**  
ENERGY  
RESOURCES

Figure 3  
Operational Received Sound  
Levels, Wind Turbines at Maximum  
Rotational Wind Speed  
Layout Proposed (Base Case)

UMATILLA, OR

- Project Boundary
- Option C Turbines
- Noise Sensitive Receptor
- Substation
- Battery Storage

Sound Level Contour Range (dBA):

- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- >= 50

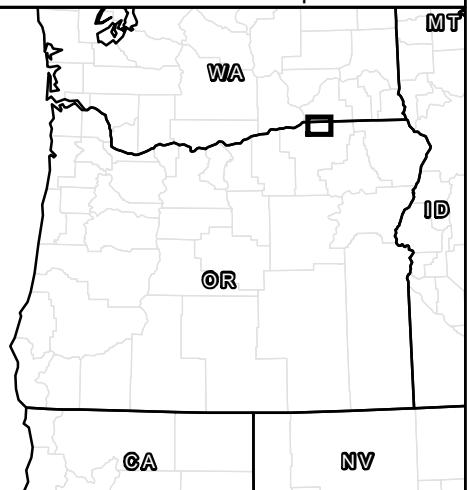


0 1.5 Miles  
1:100,000

NAD 1983 StatePlane Oregon  
North FIPS 3601 Feet Int'l

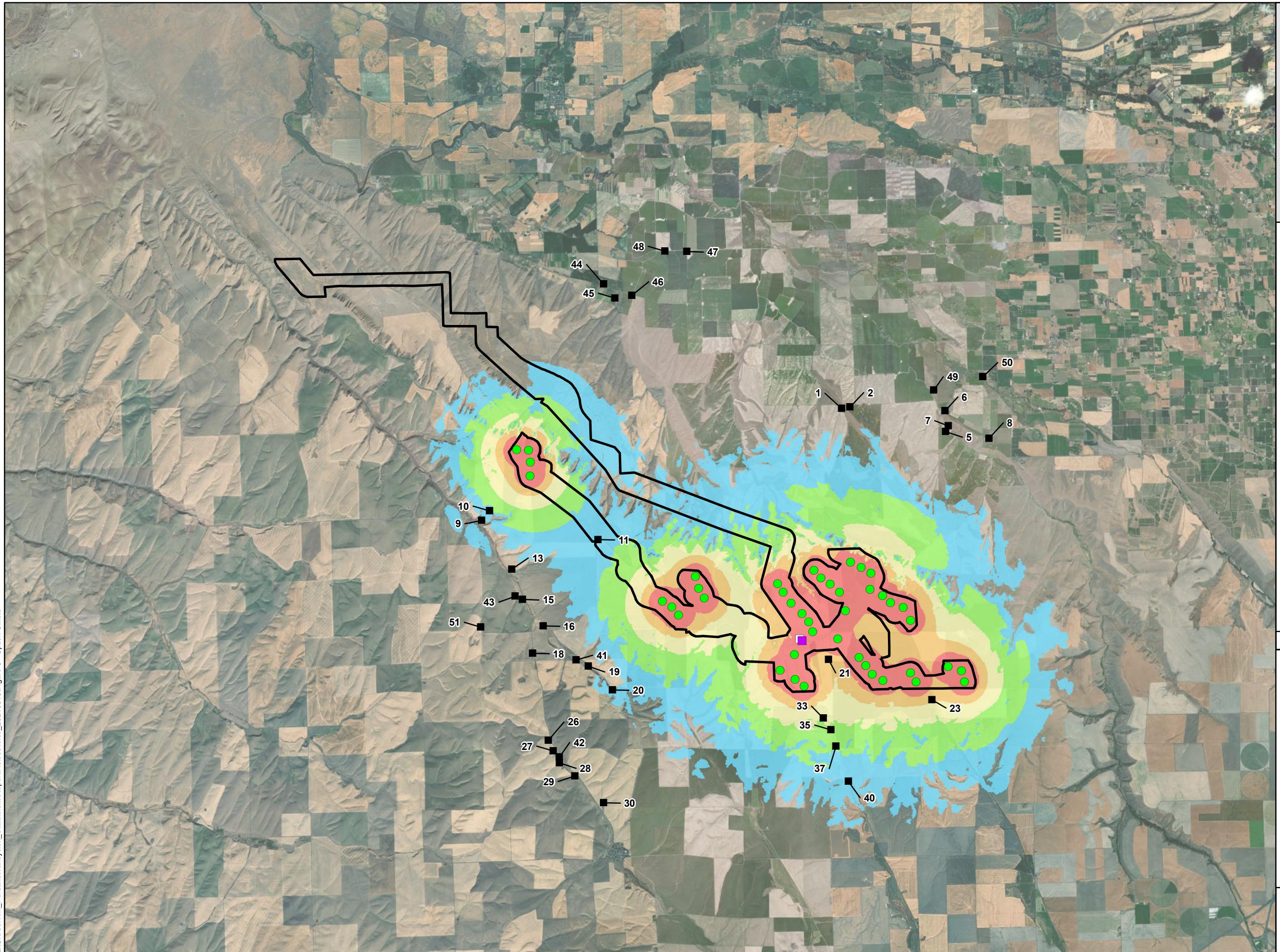
TETRA TECH

Reference Map



Data Sources: ESRI Streetmap, Oregon  
State Historic Preservation Office

Not for Construction



**Attachment 2**

**Sample Turbine Specifications Brochure**

**SIEMENS**



Siemens Wind Turbine SWT-2.3-108

The new productivity  
benchmark



# The industry standard, redefined

**The Siemens 2.3-MW family has firmly established itself as the tried and tested workhorse for reliability, with a range of rotor diameters for different wind conditions. Our new SWT-2.3-108 adds a new, larger rotor to the family, setting a new standard for productivity**

## **Greater output from lower wind speeds**

Since wind turbine technology was in its infancy, Siemens has been a major driver of innovation. And with its enhanced reliability and productivity in low to moderate wind speeds, the new SWT-2.3-108 is yet another example of the commitment to customers success.

## **Longer blades. More energy**

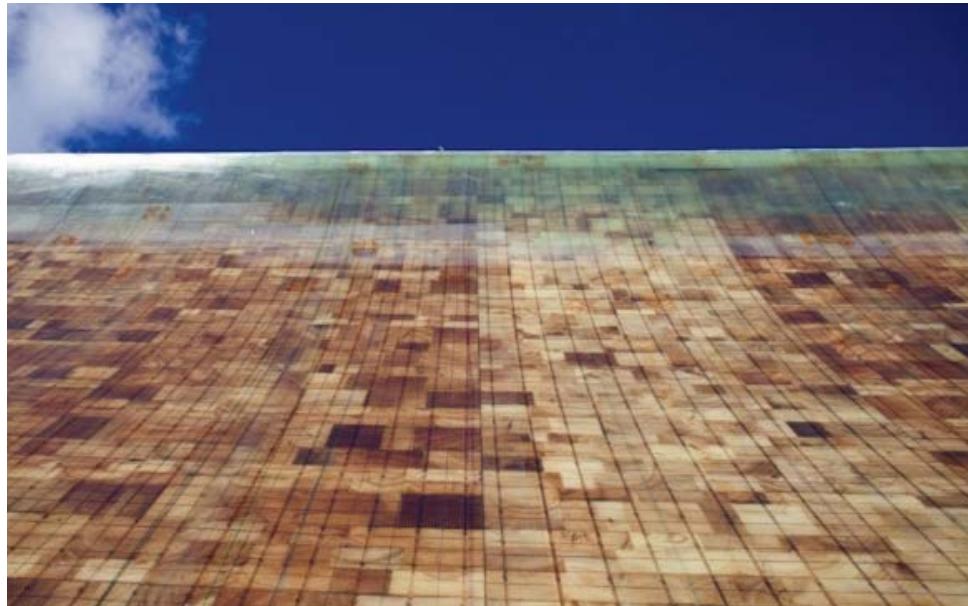
In recent years, Siemens created a product line specifically to extract more energy from moderate wind conditions. The SWT-2.3-108's innovative rotor blade design now extends productivity even further. The new 108-meter rotor with its unique blade properties is perfectly optimized for sites with low wind speeds.

## **Your trusted partner**

With its combination of robust and reliable wind turbines, highly efficient solutions for power transmission and distribution and a deep understanding of the entire energy market, Siemens continues to be a leading supplier. Long-lasting customer relationships based on an excellent delivery record provide for a sound, sustainable and profitable investment.

With over 140 years of experience in the energy sector, a strong focus on renewables and a global network of highly skilled and trained employees, Siemens has proven itself to be a trustworthy and reliable business partner. And it will continue to be in the future.

For superior availability, reliability and a lower levelized cost of energy, look no further than the new Siemens SWT-2.3-108 turbine.



*Advanced blade technology allows for longer lifecycles and contributes to lower levelized cost of energy*

## Superior performance provides higher yields

### Optimum energy output at moderate wind conditions

The SWT-2.3-108 wind turbine is designed to increase the energy returns from sites with moderate wind conditions. The advanced blade design, with a rotor diameter of 108 meters and pitch regulation, optimize power output and increase control over energy output.

### High availability

Currently, the Siemens fleet of 2.3-MW wind turbines sets the industry standard for availability. The SWT-2.3-108 will build on the reputation for reliability that the market has come to expect from a Siemens wind turbine.

### High yield with minimal maintenance

Siemens optimizes the return on investment in its wind turbines through intelligent maintenance that allows high yield with low operational costs.

The rugged structural design, combined with an automatic lubrication system, internal climate control and a generator system without slip rings contributes to exceptional reliability. The innovative design of the SWT-2.3-108 allows for longer service intervals.

### Superior grid compliance

The Siemens NetConverter® system is designed for maximum flexibility in the wind turbine's response to voltage and frequency variations, fault ride-through capability and output adjustment. The advanced wind farm control system provides state-of-the-art fleet management.

### Proven track record

Siemens has a proven track record of providing reliable wind turbines that last. The company's first commercial turbine was installed in 1980 and still operates today. The world's first offshore wind farm in Vindeby, Denmark, was installed in 1991 and is also still fully operational. In California, Siemens installed over 1,100 units between 1983 and 1990, with 97% still in operation today.

Siemens takes its commitment to reliability seriously and prides itself on the long lifespan that its wind turbines have demonstrated.

Siemens' Turbine Condition Monitoring® system instantly detects deviations from normal operating conditions



## No compromise on reliability

### SWT-2.3-108: The newest member of an extremely reliable product family

Siemens wind turbines are designed to last. The robust design of the SWT-2.3-108 allows for trouble-free output throughout the complete lifecycle of the machine.

Instead of glueing the blades together from a number of spars and shells, they are cast in a single process. This not only enables both low weight and enormous strength, there are no glue joins which could potentially expose the blades to cracking and lightning damage.

Climate control within the nacelle protects vital equipment from the outside environment. The wind turbine also offers controlled-wear strategies for critical components, which results in a further reduction of maintenance costs.

### Safety first

Safety is at the heart of all Siemens' operations. From production to installation, operation and service, Siemens strives to set the standard in safety.

The fail safe capabilities within a wind turbine, combined with Siemens' superior lightning protection system, are designed to enhance security for the turbine.

### Advanced operations support

Given the logistical challenges associated with servicing wind farms, Siemens has equipped its turbines with a Turbine Condition Monitoring® system that reduces the need for on-site servicing.

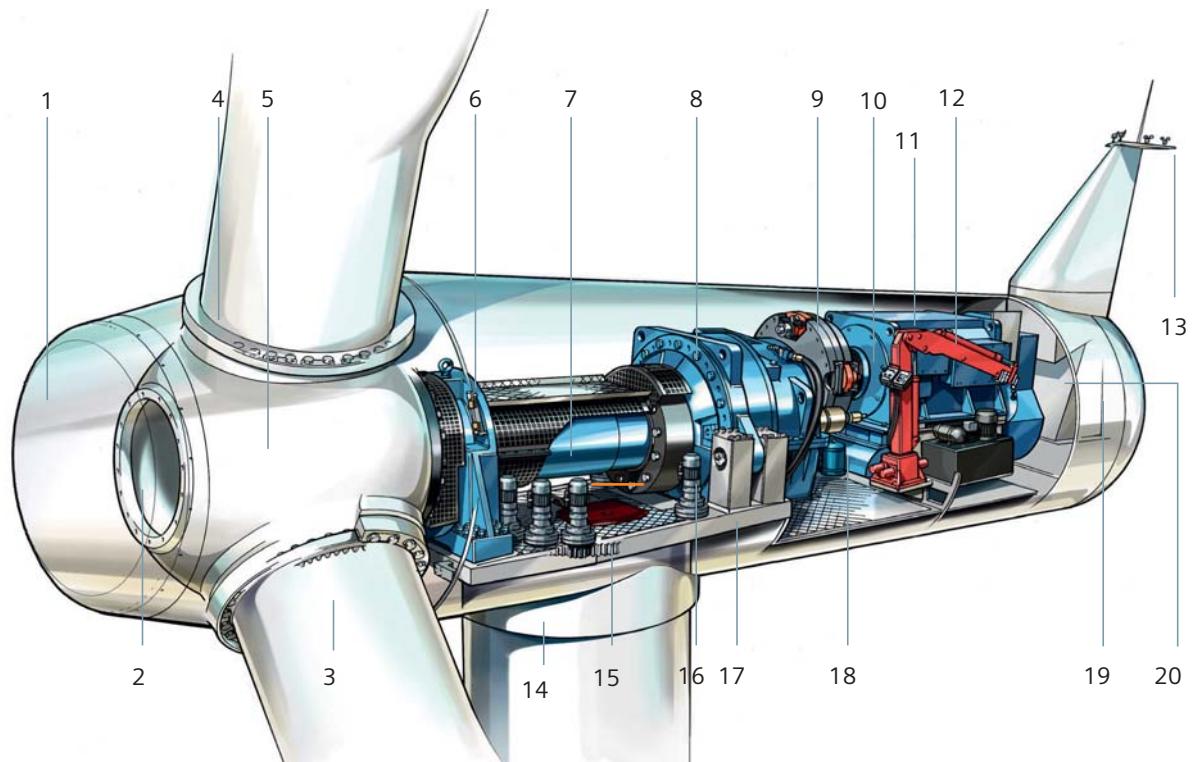
Siemens' Turbine Condition Monitoring® system compares the vibration levels of the main nacelle components with a set of established reference spectra and instantly detects deviations from normal operating conditions. This allows Siemens to proactively plan the service and maintenance of the wind turbines, as any unusual event can be categorized and prioritized based on severity.

Using the knowledge gained from monitoring thousands of wind turbines over the years, Siemens' experts are exceptionally skilled at analyzing and predicting operational anomalies. This allows Siemens to proactively plan service and maintenance activity as each event can be categorized and prioritized based on severity. Siemens can then determine the most appropriate course of action to keep the wind turbine running at its best.

# Technical Specifications

SWT-2.3-108

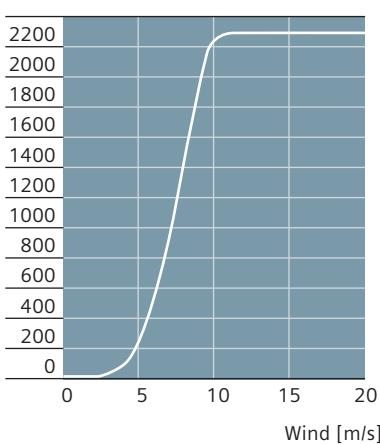
<b>Rotor</b>		<b>Canopy</b>	
Type	3-bladed, horizontal axis	Type	Totally enclosed
Position	Upwind	Material	Steel
Diameter	108 m	Surface gloss	Semi-gloss, 25-45, ISO2813
Swept area	9144 m <sup>2</sup>	Colour	Light grey, RAL 7035
Speed range	6-16 rpm	<b>Generator</b>	
Power regulation	Pitch regulation with variable speed	Type	Asynchronous
Rotor tilt	6 degrees	Nominal power	2,300 kW
<b>Blade</b>		Protection	IP 54
Type	Self-supporting	Cooling	Integrated heat exchanger
Blade length	53 m	Insulation class	F
Root chord	3.4 m	<b>Grid Terminals (LV)</b>	
Aerodynamic profile	NACA63.xxx, FFAXxx, SWPxxx	Nominal power	2,300 kW
Material	GRE	Voltage	690 V
Surface gloss	Semi-gloss, <30 / ISO2813	Frequency	50 Hz or 60 Hz
Surface colour	Light grey, RAL 7035	<b>Yaw system</b>	
<b>Aerodynamic brake</b>		Type	Active
Type	Full-span pitching	Yaw bearing	Externally geared slew ring
Activation	Active, hydraulic	Yaw brake	Passive friction brake
<b>Load-Supporting Parts</b>		Yaw drive	Eight electric gear motors with frequency converter
Hub	Nodular cast iron	<b>Controller</b>	
Main bearing	Spherical roller bearing	Type	Microprocessor
Main shaft	Alloy steel	SCADA system	WPS via modem
Nacelle bed plate	Steel	Controller designation	KK WTC 3.0
<b>Transmission system</b>		Controller manufacturer	KK Electronic A/S
Coupling hub - shaft	Flange	<b>Tower</b>	
Coupling shaft - gearbox	Shrink disc	Type	Cylindrical and/or tapered tubular
Gearbox type	3-stage planetary/helical	Hub height	80 m or site-specific
Gearbox ratio	1:91	Corrosion protection	Painted
Gearbox lubrication	Splash/forced lubrication	Surface gloss	Semi-gloss, 25-45, ISO2813
Oil volume	Approx. 400 l	Colour	Light grey, RAL 7035
Gearbox oil filtering	Inline and offline	<b>Operational data</b>	
Gearbox cooling	Separate oil cooler	Cut-in wind speed	3-4 m/s
Gearbox designation	PEAB 4456 (Winergy) or EH851 (Hansen)	Rated power at	11-12 m/s
Coupling gear - generator	Double flexible coupling	Cut-out wind speed	25 m/s
<b>Mechanical brake</b>		Maximum 3 s gust	59.5 m/s (IEC version)
Type	Hydraulic disc brake	<b>Weights (approximately)</b>	
Position	High speed shaft	Rotor	60,000 kg
Number of callipers	2	Nacelle	82,000 kg



### Sales power curve

The calculated power curve data are valid for standard conditions of 15 degrees Celsius air temperature, 1013 hPa air pressure and  $1.225 \text{ kg/m}^3$  air density, clean rotor blades and horizontal, undisturbed air flow. The calculated curve data are preliminary.

Power [kW]



### Nacelle arrangement

1. Spinner	11. Generator
2. Spinner bracket	12. Service crane
3. Blade	13. Meteorological sensors
4. Pitch bearing	14. Tower
5. Rotor hub	15. Yaw ring
6. Main bearing	16. Yaw gear
7. Main shaft	17. Nacelle bedplate
8. Gearbox	18. Oil filter
9. Brake disc	19. Canopy
10. Coupling	20. Generator fan

Published by and copyright © 2011:  
Siemens AG  
Energy Sector  
Freyeslebenstrasse 1  
91058 Erlangen, Germany

Siemens Wind Power A/S  
Lindenplatz 2  
20099 Hamburg, Germany  
[www.siemens.com/wind](http://www.siemens.com/wind)

For more information, please contact  
our Customer Support Center.  
Phone: +49 180 524 70 00  
Fax: +49 180 524 24 71  
(Charges depending on provider)  
E-mail: [support.energy@siemens.com](mailto:support.energy@siemens.com)

Wind Power Division  
E50001-W310-A184-X-4A00

Printed in Germany  
Dispo 34804 c4bs No. 7491  
MCS 12.11.1  
Printed on elementary chlorine-free  
bleached paper.

All rights reserved.  
Trademarks mentioned in this document  
are the property of Siemens AG, its affiliates,  
or their respective owners.

Subject to change without prior notice.  
The information in this document contains  
general descriptions of the technical options  
available, which may not apply in all cases.  
The required technical options should therefore  
be specified in the contract.



SG 2.6-114

Boosting production at sites with medium  
and high winds

**SIEMENS** Gamesa  
RENEWABLE ENERGY



# Technology with extensive experience and validation

SG 2.6-114: intelligent evolution to boost production in medium and high winds

---

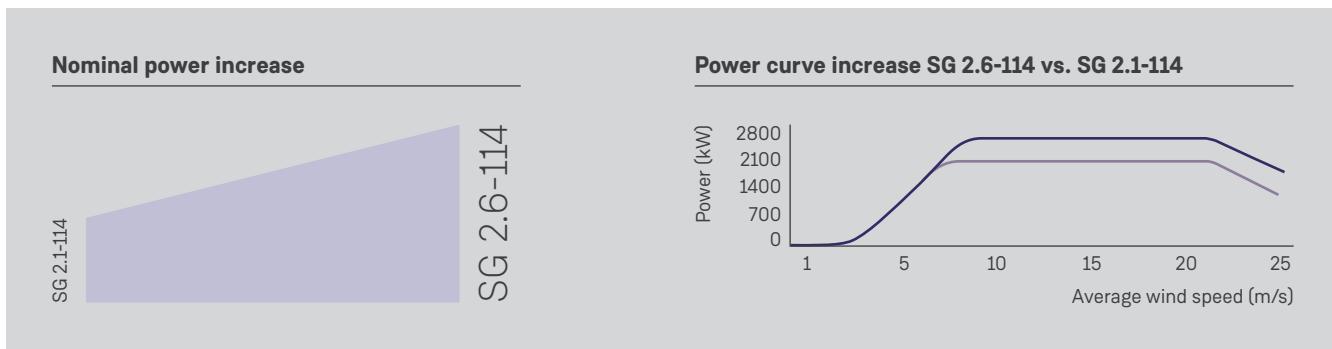
Siemens Gamesa,  
your trusted  
technology  
partner

One of the key aspects to Siemens Gamesa's success is the continuous development of new and advanced products adapted to the business case of every customer. We strive to provide the best technological solutions for each project, while driving down the LCoE.

For this reason, we offer an optimized, streamlined catalog of proven solutions

adapted to every type of site and condition, backed by:

- Our reputation as a trusted and stable partner (110 GW installed worldwide).
- A proven track record spanning more than 40 years that makes Siemens Gamesa a benchmark for wind projects.
- The recognition of the wind power sector.



### Maximum reliability

The SG 2.6-114 wind turbine is integrated into the Siemens Gamesa 2.X platform, a benchmark in the market thanks to its excellent capacity factor and high profitability. Designed for moderate- and high-wind sites, this model complements the Siemens Gamesa 2.1 MW offer in projects requiring higher nominal power. Boasting a 114-meter rotor, various tower options (from 63 to 125 meters) and increased nominal power of up to 2.625 MW, this turbine guarantees maximum efficiency at a reduced Levelized Cost of Energy.

It is a natural evolution of the SG 2.1-114 model and inherits most of the technologies, components and subsystems while incorporating the necessary modifications to achieve increased power. The main features of the SG 2.6-114 turbine include:

- Pitch and variable speed technology to maximize energy production.
- Siemens Gamesa active yaw system for ensuring optimal adaptation to complex terrain.
- Siemens Gamesa SMP: predictive maintenance system.
- DinoTails® Next Generation serrated trailing edges and Siemens Gamesa NRS® control system to minimize the noise emission levels.
- Siemens Gamesa WindNet® PRO: remote control and monitoring system with Web access.

### Higher energy output

By incorporating a 56-meter blade, designed by Siemens Gamesa using cutting-edge technologies and specifically reinforced for sites with moderate and high winds, along with a 2.625 MW generator, we have been able to increase the turbine yield by over 13% and achieve a significant reduction in the Levelized Cost of Energy compared to the SG 2.1-114 model. This makes the SG 2.6-114 turbine one of the most efficient and cost-effective solutions available to our customers.

### Versatility and extensive experience

Endorsed by its reliability, with an average fleet availability greater than 98%, and by its extensive experience, Siemens Gamesa 2.X stands out for its versatility and maximum performance at all locations and in all wind conditions.

Its range of rotors and tower heights (63-153 meters) combined with different environmental options creates an excellent proposal for harvesting maximum energy from the wind with the greatest efficiency.

### Technical specifications

General details	
Rated power	2.625 MW <sup>(1)</sup>
Wind class	IEC IA/IIA/S
Control	Pitch and variable speed
Standard operating temperature	Range from -20°C to 35°C <sup>(2)</sup>
Rotor	
Diameter	114 m
Swept area	10,207 m <sup>2</sup>
Power density	257.18 W/m <sup>2</sup>
Blades	
Length	56 m
Airfoils	Siemens Gamesa
Material	Fiberglass reinforced with epoxy or polyester resin
Tower	
Type	Multiple technologies available
Height	63, 68, 75, 80, 88, 93, 125 m and site-specific
Gearbox	
Type	3 stages
Generator	
Type	Doubly-fed induction machine
Voltage	690 V AC
Frequency	50 Hz/60 Hz
Protection class	IP 54
Power factor	0.95 CAP-0.95 IND throughout the power range <sup>(3)</sup>

<sup>(1)</sup> Flexible rating strategy up to 2.9 MW available for the CS variant under specific site conditions.

<sup>(2)</sup> Different versions and optional kits are available to adapt machinery to high or low temperatures and saline or dusty environments.

<sup>(3)</sup> Power factor at generator output terminals, on low voltage side before transformer input terminals.

**Spain**

P. Tecnológico de Bizkaia, edif. 222  
48170 Zamudio, Vizcaya

Calle Ramírez de Arellano, 37  
28043 Madrid

Avda. Ciudad de la Innovación, 9-11  
31621 Sarriguren, Navarra

onshoresales@siemensgamesa.com

**Argentina**

Madero Center, Juana Manso 555  
Piso 5, Oficina D, 1107 Buenos Aires

**Australia**

Herring Road 160, Macquarie Park  
Sydney, NSW 2113

885 Mountain Highway  
Melbourne, VIC 3153

**Austria**

Siemensstrasse 90  
Vienna 1210

**Brazil**

Av. Doutora Ruth Cardoso 8501  
5º andar, Jardim Paulistano  
São Paulo, 05425-070

**Canada**

1577 North Service Road East  
Oakville, Ontario L6H 0H6

**Chile**

Edificio Territoria El Bosque  
Avenida Apoquindo 2827, Piso 19  
Las Condes, Santiago de Chile

**China**

Siemens Center Beijing, 12th Floor  
No.7 South Wangjing Zhonghuan  
Road, Chaoyang District  
Beijing 100102

500, Da Lian Road, Yangpu District  
200082 Shanghai

**Croatia**

Heinzelova 70 A  
10000 Zagreb

**Denmark**

Borupvej 16  
7330 Brønde

Fiskergade 1  
7100 Vejle

**Egypt**

5th Floor, Bureau 175  
2nd Business Sector, Al-Horreya axis  
90 South Road, 5th Settlement  
PO Box: 245/11835 New Cairo

**Finland**

Tarvonsalmenkatu 19  
FI-02600 Espoo

**France**

Le Colisée, 8-10 avenue de l'Arche  
92400 Courbevoie, París

97 allée Alexandre Borodine  
Cedre 3, 69800 Saint Priest

**Germany**

Beim Strohhause 17-31  
20097 Hamburg

BCB business center in Kiel  
Hopfenstr. 1 D, 24114 Kiel

Universitätsallee 16  
28359 Bremen

**Greece**

44 - 46 Riga Fereou Str. &  
Messogion Ave  
Neo Psychiko  
Athens, 15451

**India**

#334, Block-B, Futura Tech Park  
Rajiv Gandhi Salai, Sholinganallur  
Chennai 600119

**Indonesia**

Menara Karya, JL. HR. Rasuna Said  
Blok X-5, Kav. 1-2  
Jakarta

**Ireland**

Innovation House  
DCU Alpha  
Old Finglas Road 11, Glasnevin  
Dublin 11

**Italy**

Centro Direzionale Argonauta  
Via Ostiense 131/L, Corpo C1  
9° piano, 00154 Roma

Via Vipiteno 4, 20128 Milan

**Japan**

Otemachi First Square Tower  
1-5-1 Otemachi, Chiyoda-ku  
100-0004 Tokyo

**Korea**

Seoul Square 5th Floor 416  
Hangang-daero, Jung-gu  
Seoul 04637

**Mexico**

Paseo de la Reforma 505  
Torre Mayor, 37th Floor  
Col. Cuauhtémoc, Del. Cuauhtémoc  
06500 Mexico City

Carretera Juchitán, Espinal, km 4  
El Espinal, Oaxaca

**Morocco**

Anfa Place Blvd. de la Corniche  
Centre d'Affaires "Est", RDC  
20200 Casablanca

**Netherlands**

Prinses Beatrixlaan 800  
2595 BN Den Haag

**Norway**

Østre Aker vei 88, 0596 Oslo

**Philippines**

10F, 8767 Paseo de Roxas  
Makati

**Poland**

Zupnicza street 11, 3rd Floor  
03-821 Warsaw

UL. Galaktyczna 30A  
80-299 Gdańsk

**Singapore**

Siemens Center  
60 MacPherson Road  
Singapore 348615

**South Africa**

Siemens Park  
Halfway House  
300 Janadel Avenue  
Midrand 1685

**Sweden**

Evenemangsgatan 21  
169 79 Solna

**Taiwan**

8F-1/6F N° 126  
Songjiang Road  
Taipei City

**Turkey**

Esentepe mahallesi Kartal  
Yakacik Yolu No 111  
34870 Kartal  
İstanbul

**United Kingdom**

Solais House  
19 Phoenix Cres  
Bellshill ML4 3BF

**USA**

11950 Corporate Boulevard  
Orlando, FL 32817

1150 Northbrook Drive  
Suite 350  
Trevose, PA 19053

**Vietnam**

14th Floor, Saigon Centre  
65 Le Loi street  
Ben Nghe ward District 1  
Ho Chi Minh City

The present document, its content, its annexes and/or amendments has been drawn up by Siemens Gamesa Renewable Energy, S.A. for information purposes only and could be modified without prior notice. The information given only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract. All the content of the document is protected by intellectual and industrial property rights owned by Siemens Gamesa Renewable Energy, S.A. The addressee shall not reproduce any of the information, neither totally nor partially.

03/2021



SG 2.9-129

Built on a foundation of proven technology  
and continuous innovation

**SIEMENS Gamesa**  
RENEWABLE ENERGY



# Increased capacity factor for greater returns

SG 2.9-129: a turbine with a certified 25-year design lifetime built for the needs of the American market

---

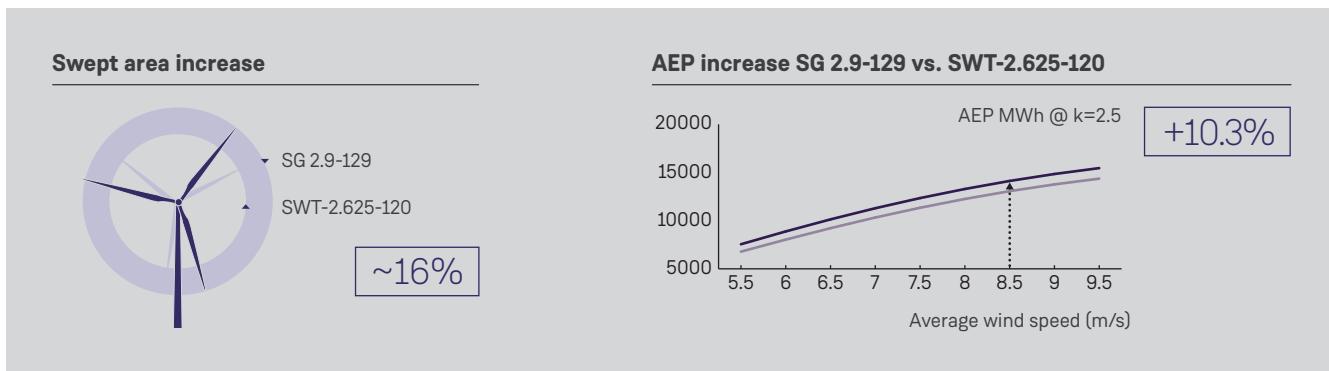
Siemens Gamesa,  
your trusted  
technology  
partner

One of the key aspects to Siemens Gamesa's success is the continuous development of new and advanced products adapted to the business case of every customer. We strive to provide the best technological solutions for each project, while driving down the LCoE.

For this reason we offer an optimized, streamlined catalog of proven solutions for different site conditions and financial

performance indicators. Our solutions are backed by:

- Our reputation as a trusted and stable partner (110 GW installed worldwide).
- A proven track record spanning more than 40 years that makes Siemens Gamesa a benchmark for wind projects.
- The recognition of the wind power sector.



### The SG 2.9-129 wind turbine for medium to low-wind sites

The SG 2.9-129 wind turbine is the latest Siemens Gamesa onshore turbine developed to meet the medium to low-wind site and market conditions of the American market. The turbine is designed based on the foundation of the proven 2.3 MW geared product series, one of the most robust and successful turbine lines in the market, with over half of the 10,549\* units installed globally installed in North America (more than 7,300 units). The product configuration maintains a similar design, utilizing components from its predecessor, the SWT-2.625-120.

To deliver the lowest Cost of Energy and maximize performance across various sites in the U.S., the SG 2.9-129 is designed with the higher capacity factor our customers demand. This improved model demonstrates our ability to offer flexible solutions for every context while delivering a certified 25-year design lifetime, standard.

### Proven technology

The experience acquired through our latest products, specifically in the optimization of design, prototyping, validation and industrialization processes, along with enhanced design tools such as FEA, thermal modeling and grid analysis has been a key factor in the development of the SG 2.9-129 wind turbine.

- Siemens Gamesa has incorporated proven technologies into this wind turbine, boosting capacity and simplifying maintenance.
- Aeroelastic tailored blades with 129-m rotor diameter.
- IntegralBlade® technology, DinoTails® Next Generation, Vortex Generators and cross-section (airfoil) designs.
- Adaptive yaw system for optimized performance.
- Gearbox with two planetary stages and one helical for increased capacity.
- Efficient direct cooling system.

## Technical specifications

General details	
Rated power	2.9 MW
Wind class	S
Control	Pitch and variable speed
Standard operating temperature	Range from -20°C to 45°C <sup>(1)</sup>
Rotor	
Diameter	129 m
Swept area	13,070 m <sup>2</sup>
Power density	221.88 W/m <sup>2</sup>
Blades	
Length	63.5 m
Airfoils	Siemens Gamesa
Material	Fiberglass reinforced with epoxy resin
Tower	
Type	Tubular steel tower
Height	87 m and site-specific
Gearbox	
Type	3 stages
Generator	
Type	Full scale converter
Voltage	690 V AC
Frequency	60 Hz
Protection class	IP 54
Power factor	0.9 CAP-0.9 IND throughout the power range <sup>(2)</sup>

<sup>(1)</sup> Different versions and optional kits are available to adapt machinery to high or low temperatures and saline (C4) or dusty environments. Derating may apply under certain siting conditions above 30°C.

<sup>(2)</sup> Power factor at generator output terminals on lower side of MV transformer.

**USA**

11950 Corporate Boulevard  
Orlando, FL 32817      1150 Northbrook Drive, Suite 350  
Trevose, PA 19053      1050 Walnut, Suite 303  
Boulder, CO 80302      onshoresales@siemensgamesa.com

**Argentina**

Madero Center, Juana Manso 555  
Piso 5, Oficina D, 1107 Buenos Aires

**Australia**

Herring Road 160  
Macquarie Park  
Sydney, NSW 2113

885 Mountain Highway  
Melbourne, VIC 3153

**Austria**

Siemensstrasse 90  
Vienna 1210

**Brazil**

Av. Doutora Ruth Cardoso 8501  
5º andar, Jardim Paulistano  
São Paulo, 05425-070

**Canada**

1577 North Service Road East  
Oakville, Ontario L6H 0H6

**Chile**

Edificio Territoria El Bosque  
Avenida Apoquindo 2827, Piso 19  
Las Condes, Santiago

**China**

Siemens Center Beijing  
12th Floor No.7  
No. 7 S. Wangjing Zhonghuan Road  
Chaoyang District Beijing 100102

500, Da Lian Road, Yangpu District  
200082 Shanghai

**Croatia**

Heinzelova 70 A  
10000 Zagreb

**Denmark**

Borupvej 16  
7330 Brønde

Fiskergade 1  
7100 Vejle

**Egypt**

5th Floor, Bureau 175  
2nd Business Sector, Al-Horreya axis  
90 South Road, 5th Settlement  
PO Box: 245/11835

**Finland**

Tarvonsalmenkatu 19  
FI-02600 Espoo

**France**

Le Colisée, 8-10 avenue de l'Arche  
92400 Courbevoie, París

97 allée Alexandre Borodine  
Cedre 3, 69800 Saint Priest

**Germany**

Beim Strohhouse 17-31  
20097 Hamburg

BCB business center in Kiel  
Hopfenstr. 1 D, 24114 Kiel

Universitätsallee 16  
28359 Bremen

**Greece**

44 - 46 Riga Fereou Str. &  
Messogion Ave  
Neo Psychiko  
Athens, 15451

**India**

#334, Block-B, Futura Tech Park  
Rajiv Gandhi Salai, Sholinganallur  
Chennai 600119

**Indonesia**

Menara Karya, JL. HR. Rasuna Said  
Blok X-5, Kav. 1-2  
Jakarta

**Ireland**

Innovation House  
DCU Alpha  
Old Finglas Road 11, Glasnevin  
Dublin 11

**Italy**

Centro Direzionale Argonauta  
Via Ostiense 131/L, Corpo C1  
9° piano  
00154 Roma

Via Vipiteno 4, 20128 Milan

**Japan**

Otemachi First Square Tower  
1-5-1 Otemachi, Chiyoda-ku  
100-0004 Tokyo

**Korea**

Seoul Square 5th Floor 416  
Hangang-daero, Jung-gu  
Seoul 04637

**Mexico**

Paseo de la Reforma 505  
Torre Mayor, 37th Floor  
Col. Cuauhtémoc, Del. Cuauhtémoc  
06500 Mexico City

Carretera Juchitán, Espinal, km 4  
El Espinal, Oaxaca

**Morocco**

Anfa Place Blvd. de la Corniche  
Centre d'Affaires "Est", RDC  
20200 Casablanca

**Netherlands**

Prinses Beatrixlaan 800  
2595 BN Den Haag

**Norway**

Østre Aker vei 88, 0596 Oslo

**Philippines**

10F, 8767 Paseo de Roxas  
Makati

**Poland**

Zupnicza street 11, 3rd Floor  
03-821 Warsaw

UL. Galaktyczna 30A  
80-299 Gdańsk

**Singapore**

Siemens Center  
60 MacPherson Road  
Singapore 348615

**South Africa**

Siemens Park  
Halfway Hous, 300 Janadel Avenue  
Midrand 1685

**Spain**

P. Tecnológico de Bizkaia, edif. 222  
48170 Zamudio, Vizcaya

Calle Ramírez de Arellano, 37  
28043 Madrid

Avda. Ciudad de la Innovación, 9-11  
31621 Sarriguren, Navarra

**Sweden**

Evenemangsgatan 21  
169 79 Solna

**Taiwan**

8F-1/6F Nº 126  
Songjiang Road  
Taipei City

**Turkey**

Esentepe mahallesi Kartal  
Yakacik Yolu No 111  
34870 Kartal  
Istanbul

**United Kingdom**

Solais House  
19 Phoenix Cres  
Bellshill ML4 3BF

**USA**

1050 Walnut, Suite 303  
Boulder, CO 80302

**Vietnam**

14th Floor, Saigon Centre  
65 Le Loi street  
Ben Nghe ward District 1  
Ho Chi Minh City

The present document, its content, its annexes and/or amendments has been drawn up by Siemens Gamesa Renewable Energy, S.A. for information purposes only and could be modified without prior notice. The information given only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract. All the content of the document is protected by intellectual and industrial property rights owned by Siemens Gamesa Renewable Energy, S.A. The addressee shall not reproduce any of the information, neither totally nor partially.

03/2021



SG 2.6-126

Benchmark in profitability for low- and medium-wind sites



# Excellent capacity factor and reduced LCoE

SG 2.6-126: efficient technology, endorsed and recognized by the wind power sector

---

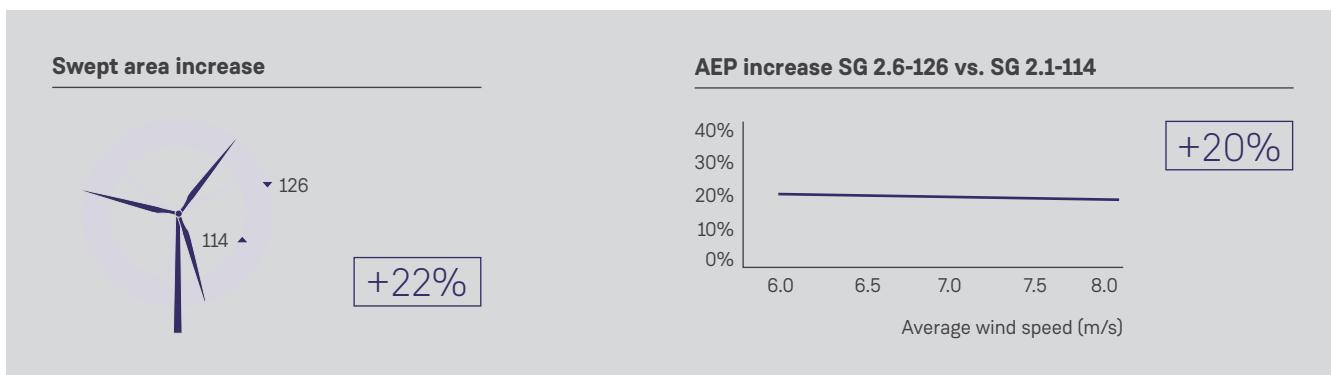
Siemens Gamesa,  
your trusted  
technology  
partner

One of the key aspects to Siemens Gamesa's success is the continuous development of new and advanced products adapted to the business case of every customer. We strive to provide the best technological solutions for each project, while driving down the LCoE.

For this reason, we offer an optimized, streamlined catalog of proven solutions

adapted to every type of site and condition, backed by:

- Our reputation as a trusted and stable partner (+84.5 GW installed worldwide).
- A proven track record spanning over 35 years that makes Siemens Gamesa a benchmark for wind projects.
- The recognition of the wind power sector.



### Benchmark in profitability for low- and medium-wind sites

The SG 2.6-126 wind turbine is one of the latest additions to the Siemens Gamesa 2.X platform, a benchmark in the market thanks to its excellent capacity factor and high profitability. Designed for low- and moderate-wind sites, this model seeks to offer our customers one of the most competitive products in the 2 to 3 MW power segment.

Boasting a 126-meter rotor combined with a 2.625 MW generator, this turbine is a benchmark in the market for profitability. The knowledge acquired through our latest products, specifically in the optimization of design, prototyping, validation and industrialization processes, has been a key factor in the development of the SG 2.6-126 turbine.

### Proven Siemens Gamesa technology

Thanks to its extremely low power density, excellent capacity factor and reduced Levelized Cost of Energy, the SG 2.6-126 wind turbine has been highly acclaimed within the wind power sector, as recognized by the *Windpower Monthly* magazine with its Best Onshore Wind Turbine 2016 award in the up to 2.9 MW category.

SG 2.6-126 has a 62-meter blade. This is a new development from the 56-meter variant extensively validated in Siemens Gamesa projects involving wind turbines with a 114-meter rotor, through which we have achieved maximum production combined with reduced noise emission levels. In addition, the electrical system that it incorporates is also common to all other solutions with 2.625 MW of nominal power.

### Versatility and extensive experience

Endorsed by its reliability, with an average fleet availability greater than 98%, and by its extensive experience, Siemens Gamesa 2.X stands out for its versatility and maximum performance at all locations and in all wind conditions. Its range of rotors and tower heights (63-153 meters) combined with different environmental options creates an excellent proposal for harvesting maximum energy from the wind with the greatest efficiency.

## Technical specifications

General details	
Rated power	2.625 MW
Wind class	IEC IIIA
Control	Pitch and variable speed
Standard operating temperature	Range from -20°C to 35°C <sup>(1)</sup>
Rotor	
Diameter	126 m
Swept area	12,469 m <sup>2</sup>
Power density	210.50 W/m <sup>2</sup>
Blades	
Length	62 m
Airfoils	Siemens Gamesa
Material	Fiberglass reinforced with epoxy or polyester resin
Tower	
Type	Multiple technologies available
Height	84, 102, 137, 153 m and site-specific
Gearbox	
Type	3 stages
Generator	
Type	Doubly-fed induction machine
Voltage	690 V AC
Frequency	50 Hz/60 Hz
Protection class	IP 54
Power factor	0.95 CAP-0.95 IND throughout the power range <sup>(2)</sup>

<sup>(1)</sup> Different versions and optional kits are available to adapt machinery to high or low temperatures and saline or dusty environments.

<sup>(2)</sup> Power factor at generator output terminals, on low voltage side before transformer input terminals.

Siemens Gamesa Renewable Energy, S.A.  
Parque Tecnológico de Bizkaia, Edif. 222  
48170, Zamudio, Vizcaya, Spain  
Phone: +34 944 03 73 52  
sales@siemensgamesacorp.com

**Australia**  
160 Herring Road, Macquarie Park  
Sydney, NSW 2113

**Austria**  
Siemensstraße 90  
Wien 1210  
Phone: +43 51707 0

**Belgium**  
De Gijzeleer Industrial Park  
Industriezone Neerdorp  
Huizingen, Guido Gezellestraat 123  
Vlaams-Brabant, 1654 Beersel  
Phone: +32 (2) 536 2111

**Brazil**  
Eldorado Business Tower  
Av. das Nações Unidas, 8.501  
5º andar  
Pinheiros, São Paulo - SP  
Phone: +55 (11) 3096-4444

**Canada**  
1577 North Service Road East  
Oakville, Ontario, L6H 0H6  
Phone: +1 905-465-8000

**Chile**  
Avenida Vitacura 2969  
Oficina 1002  
Las Condes, Santiago

**China**  
23rd Floor, No. 1 Building  
Prosper Center, No. 5 Institution  
Guanghua Road, Chaoyang District  
Beijing 100020  
Phone: +86 (10) 5789 0899

**Croatia**  
Heinzelova 70a  
HR-10000 Zagreb  
Phone: +385 (1) 6105 494

**Denmark**  
Borupvej 16  
7330 Brønde  
Phone: +45 9942 2222

**Egypt**  
3, Rd 218 Degla  
11431 Maadi, Cairo  
Phone: +202 25211048

**France**  
40 avenue des Fruitiers  
93200 Saint-Denis  
Phone: +33 (0) 85 57 00 00

**Germany**  
Berliner-Tor-Center  
Beim Strohhouse 17-31  
20097 Hamburg  
Phone: +49 (40) 2889 0

**Greece**  
9 Adrianou str  
11525 Neo Psychiko  
Athens  
Phone: +30 2106753300

**Hong Kong**  
35th Floor Central Plaza  
18, Harbour Road, Wan Chai  
Phone: +852 2593 1140

**Hungary**  
Gizella út 51-57  
1143 Budapest  
Phone: +36 (1) 471 1410

**India**  
#334, 8th Floor, Block-B  
The Futura Tech Park  
Sholinganallur  
Chennai-119  
Phone: +91 44 39242424

**Iran**  
No. 13, Bandar Anzali Street  
Ayatollah Taleghani Avenue  
15936-43311 Tehran  
Phone: +98 (21) 8518 1

**Ireland**  
Innovation House, DCU Alpha  
Old Finglas Road, Glasnevin  
Dublin 11

**Italy**  
Via Vipiteno 4  
20128 Milan  
Phone: +39 022 431

**Japan**  
Gate City Osaki West Tower  
1-11-1 Osaki, Shinagawa-ku  
Tokyo, 141-0032  
Phone: +81 (3) 3493-6378

**Korea**  
Seoul Square 12th Floor, 416  
Hangang-daero, Jung-gu  
Seoul 04637  
Phone: +82 (2) 6270 4800

**Mexico**  
Paseo de la Reforma nº 505, piso 37  
Torre Mayor, Col. Cuauhtémoc  
06500 Mexico City  
Phone: +52 55 50179700

**Morocco**  
Anfa Place Blvd. de la Corniche  
Centre d'Affaires "Est", RDC  
20200 Casablanca  
Phone: +212 5 22 67 68 01

**Netherlands**  
Prinses Beatrixlaan 800  
Zuid-Holland, 2595 BN Den Haag  
Phone: +31 (70) 333 2712

**Norway**  
Østre Aker vei 88  
0596 Oslo

**Philippines**  
22nd Floor, Tower 1  
The Enterprise Center I  
6766 Ayala Avenue cor.  
Paseo de Roxas, Makati City 1200  
Phone: +63 2 729 7221

**Poland**  
ul. Zupnicza 11, Mazowieckie  
03-821 Warsaw  
Phone: +48 (22) 870 9000

**Singapore**  
60 MacPherson Road  
The Siemens Center  
Singapore 348615  
Phone: +65 6490 6004

**South Africa**  
Siemens Park, Halfway House  
300 Janadel Avenue  
Midrand 1685  
Phone: +27 (11) 652 2148

**Sri Lanka**  
No. 51/1, Colombo Road  
Kurana, Katunayake  
Gampaha, Western Province  
Phone: +94 312235890

**Sweden**  
Johanneslundsvägen 12-14  
SE-194 87 Upplands Väsby  
Phone: +46 (8) 728 1000

**Thailand**  
98 North Sathorn Road  
37/F Sathorn Square  
Silom, Bangkok, 10500  
Phone: +66 2 105 6300

**Turkey**  
Esentepe mahallesi, Kartal  
Yakacik Caddesi No 111  
34870 İstanbul  
Phone: +90 (216) 459 2000

**United Kingdom**  
Faraday House  
Sir William Siemens Square  
Frimley, Camberley GU16 8QD

**USA**  
3500 Quadrangle Boulevard  
Quad 14, Orlando, FL 32817  
Phone: +1 407 736-2000

**Vietnam**  
16th floor, Saigon Center  
29 Le Duan st., Dist. 1, Ho Chi Minh  
Phone: +84 28 35207713

The present document, its content, its annexes and/or amendments has been drawn up by Siemens Gamesa Renewable Energy, S.A. for information purposes only and could be modified without prior notice. The information given only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract. All the content of the document is protected by intellectual and industrial property rights owned by Siemens Gamesa Renewable Energy, S.A. The addressee shall not reproduce any of the information, neither totally nor partially.

06/2018

[www.siemensgamesa.com](http://www.siemensgamesa.com)