

Exhibit J

Wetlands and Other Jurisdictional Waters

**Biglow Canyon Wind Farm
December 2025**

Prepared for



Portland General Electric Company

Prepared by



TETRA TECH

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Acronyms and Abbreviations

AC	alternating current
Arid West Supplement	Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement
BCWF or Existing Facility	Biglow Canyon Wind Farm
BIGL or Project Developer	BIGL bn, LLC
Certificate Holder or PGE	Portland General Electric Company
Council or EFSC	Oregon Energy Facility Siting Council
CFR	Code of Federal Regulations
Manual	Wetlands Delineation Manual,
MW	megawatt
OAR	Oregon Administrative Rules
ODOE	Oregon Department of Energy
ODSL	Oregon Department of State Lands
ORS	Oregon Revised Statutes
PEM	palustrine emergent
RFA	Request for Amendment
SDAM	Streamflow Duration Assessment Method for the Pacific Northwest
Site Certificate	Site Certificate on Amendment 3
Solar Components	photovoltaic solar energy generation and battery storage
WOTUS	waters of the United States

1.0 Introduction

The Portland General Electric Company (PGE or Certificate Holder) submits this Request for Amendment (RFA) 4 to the Site Certificate on Amendment 3, issued October 31, 2008 (Site Certificate) for the Biglow Canyon Wind Farm (BCWF or Existing Facility) to add photovoltaic solar energy generation and battery storage (Solar Components) to the operating BCWF.

BCWF, owned and operated by PGE, is located within an approved site boundary comprising approximately 25,000 acres, approximately 4.5 miles northeast of the town of Wasco in Sherman County, Oregon. The BCWF operates under the Site Certificate from the Oregon Energy Facility Siting Council (Council or EFSC) as administered by the Oregon Department of Energy (ODOE). BCWF currently consists of 217 wind turbines, with a maximum blade tip height of 445 feet, and a peak generating capacity of 450 megawatts (MW).

In RFA 4, PGE proposes to add up to 125 MW alternating current (AC) generating capacity from photovoltaic solar arrays and 125 MW in battery storage capacity (Solar Components) in approximately 1,445 acres of land (Solar Area) sited within the existing BCWF site boundary Solar Micrositing Area (RFA 4 Site Boundary¹).

The Solar Micrositing Area is approximately 1,924 acres and provides a conservative estimate of the maximum area needed for development, micrositing, and temporary disturbances from the Solar Components during construction, rather than the anticipated temporary and permanent disturbance footprint. Within the Solar Micrositing Area, the Certificate Holder has identified a reduced footprint where Solar Components will be concentrated (Solar Area; 1,445 acres). Solar Components will include solar arrays, inverters, battery energy storage system facilities and their subcomponents (i.e., inverters), a collector substation, approximately 600 feet of a new 230-kilovolt generation tie transmission line, medium voltage collector lines, operations and maintenance structures, site access roads, internal roads, perimeter fencing, facility entry gates, and temporary laydown areas. The maximum generating capacity from the Solar Components will be 125 MW AC, and the infrastructure will be fenced within the Solar Micrositing Area and will cover up to 1,445 acres (Solar Area).

PGE will own and operate the Solar Components as a part of the BCWF (together, Amended Facility or Facility), which, to date, have been developed by BIGL bn, LLC (BIGL or Project Developer. BIGL, in its capacity as the project developer, supports PGE in this RFA 4 and may construct and temporarily operate the Solar Components on behalf of PGE under a Build-Transfer Agreement.

Exhibit J provides the information required by Oregon Administrative Rules (OAR) 345-021-0010(1)(j) in support of RFA 4. The information summarized in this exhibit and described in RFA 4 demonstrate that the Facility, as proposed, can be designed, engineered, constructed, operated, and

¹ Note, as described in further detail in Section 4.1.1.2 of the RFA 4 Division 27 document, the Solar Micrositing Area is the equivalent of the RFA 4 Site Boundary.

retired in a manner that satisfies the applicable Council standards. The proposed changes in RFA 4 do not alter the Certificate Holder's ability to comply with applicable Site Certificate Conditions.

2.0 Analysis Area

Consistent with OAR 345-027-0360(3), ODOE concurred with the Certificate Holder's use of a defined portion of the approved BCWF site boundary (i.e., Solar Micrositing Area/RFA 4 Site Boundary) to establish study area boundaries for RFA 4 under OAR 345-001-0010(35). The RFA 4 Site Boundary reflects the Solar Micrositing Area, and all study areas within the meaning of ORS 345-001-0010(35) are measured from the RFA 4 Site Boundary. The analysis area for wetlands and other jurisdictional waters is the Solar Micrositing Area² and is referred to in this exhibit as the Wetland Study Area (see Figures J-1 and J-2). All permanent and temporary disturbance associated with RFA 4 are proposed within the Wetland Study Area; however, not all this area will be disturbed.

3.0 Wetlands and Other Jurisdictional Waters – OAR 345-021-0010(1)(j)(A)

OAR 345-021-0010(1)(j) Information based on literature and field study, as appropriate, about waters of this state, as defined under ORS 196.800, including:

OAR 345-021-0010(1)(j)(A) A description of all areas within the site boundary that might be waters of this state and a map showing the location of these features;

Response:

3.1 Definitions

3.1.1 Federal

Waters of the United States (WOTUS) are defined in 33 Code of Federal Regulations (CFR) 36 328.3(a)(1-5) in accordance to the final rule effective since September 8, 2023, as:

(a) Waters of the United States means:

(1) Waters which are:

(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

² ODOE concurred with excluding the remaining BCWF site boundary that does not overlap with the Solar Micrositing Area from analysis in RFA 4 because no changes are proposed to any BCWF components in the remaining BCWF site boundary as part of RFA 4.

- (ii) *The territorial seas; or*
 - (iii) *Interstate waters;*
- (2) *Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;*
- (3) *Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;*
- (4) *Wetlands adjacent to the following waters:*
 - (i) *Waters identified in paragraph (a)(1) of this section; or*
 - (ii) *Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;*
- (5) *Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.*

Wetlands are defined federally at 33 CFR § 328.3(c) as “Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

3.1.2 State

Oregon Revised Statute (ORS) 196.800(15) defines waters of the State more broadly than federal WOTUS. Specifically, waters of the State include “all natural waterways, tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands, that portion of the Pacific Ocean that is in the boundaries of this state, all other navigable and non-navigable bodies of water in this state and those portions of the ocean shore, as defined in ORS 390.605, where removal or fill activities are regulated under a state-assumed permit program as provided in 33 United States Code 1344(g) of the Federal Water Pollution Control Act, as amended.” Wetlands are defined in ORS 196.800(17) as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

The Oregon Department of State Lands (ODSL) definition of wetlands mirrors the federal definition; see OAR 141-085-0510 (110).

3.2 Jurisdictional Versus Non-Jurisdictional Waters

Not all wetlands and streams are within the jurisdiction of state or federal regulation, and not all waters falling within the state’s jurisdiction fall under federal jurisdiction. For the RFA 4, several

jurisdictional distinctions are important to estimate impacts only to jurisdictional wetlands and other waters. These include determinations related to the following:

- Ephemeral streams, which generally are not under state jurisdiction and are evaluated on a case-by-case basis for federal jurisdiction, as distinct from perennial and intermittent (USACE 2005, USACE 2008).
- Artificially created roadside and farm ditches, which are considered waters of the State if they contain food or game fish and are connected to waters of the State (OAR 141-085-0515(8)) and WOTUS if they connect to other WOTUS and are not ephemeral (EPA and USACE 2011).

Ephemeral streams are defined in the Streamflow Duration Assessment Method for the Pacific Northwest (SDAM; Nadeau 2015) as streams that flow:

...only in direct response to precipitation. Water typically flows only during and shortly after large precipitation events. An ephemeral stream may or may not have a well-defined channel, the stream bed is always above the water table, and stormwater runoff is the primary source of water. An ephemeral stream typically lacks biological, hydrological, and physical characteristics commonly associated with the continuous or intermittent conveyance of water).

In contrast, intermittent streams are defined by Oregon as “any stream which flows during a portion of every year and which provides spawning, rearing or food-producing areas for food and game fish” (OAR 141-085-0510(49)). Food-producing streams are typically one stream order above a fish-bearing stream.

While Exhibit J uses the term “jurisdictional waters,” the Certificate Holder recognizes that final determination of agency jurisdiction will be made by ODSL, based on the information presented by the Certificate Holder.

3.3 Delineation of Wetlands and Other Water Features

The following sections detail the methods and results of the wetland delineation surveys that were completed in July of 2024 by Tetra Tech within the Solar Micrositing Area. The Survey Area (also referenced as the Study Area) covered approximately 3,980 acres, which at the time represented the entirety of the Solar Micrositing Area, which has since been reduced.

3.3.1 Methods

Field investigations for the delineation of wetlands and other waters included pedestrian surveys within the Wetland Study Area. Tetra Tech conducted field surveys from July 9 to 12, 2024. The desktop wetland data were used to focus the wetland delineations, whereas the desktop surface water data were used to focus the non-wetlands water evaluation as necessary (Figure J-1).

Wetland presence was determined as per methods in the Manual and the Arid West Supplement. A field indicator of each of the three wetland parameters (i.e., hydrophytic vegetation, hydric soils,

and wetland hydrology) must be present to make a positive wetland determination. During the delineation effort, each other water, if encountered, was also examined for wetland characteristics consistent with waters of the State definitions (see Section 3.1.2). The location and extent of each delineated feature along with photograph locations and sample plot locations was mapped with Global Positioning System technology. Upland plots were also established at some survey locations with orthoimagery signatures to confirm that the sites did not meet wetland criteria.

Detailed descriptions of delineation methods for wetlands and other waters are provided in the Wetland and Other Waters Delineation Report (Attachment J-1). Notification of concurrence of the Wetlands and Other Waters Delineation Report was provided by ODSL on August 15, 2025 (Attachment J-1).

3.3.2 Results

The wetland and other waters surveys within the Wetland Study Area resulted in the delineation of one riverine wetland (PSS; Flats) and two palustrine emergent wetlands (PEM; Flats; see Figure J-2). Three ephemeral drainages were also mapped within the Wetland Study Area. Per the definitions under CFR 36 328.3(a)(4) and OAR 141-085-0510, the riverine wetland is likely considered a WOTUS as well as a waters of the State as it is potentially hydrologically connected to the John Day River, a water of the State and a WOTUS, outside the analysis area. Both the PEM wetlands appear to be artificially created and do not appear to be hydrologically connected to any other bodies of water considered waters of the State or WOTUS. Therefore, per the definitions under CFR 36 328.3(b) and OAR 141-085-0515, they are likely not considered waters of the State or WOTUS.

4.0 Effects on Wetlands and Other Jurisdictional Waters of the State – OAR 345-021-0010(1)(j)(B)

OAR 345-021-0010(1)(j)(B) An analysis of whether construction or operation of the proposed facility would adversely affect any waters of this state;

Response: OAR 345-021-0010(1)(j)(B) requests an analysis of any adverse effects on waters of the State from the Solar Components. The Solar Components are not expected to adversely affect waters of the State as defined under OAR 141-085-0510 (see Figure J-2). The wetlands within the Solar Micrositing Area will have at least 50-foot buffers from any construction activities.

4.1 Significance of Impacts – OAR 345-021-0010(1)(j)(C)

OAR 345-021-0010(1)(j)(C) A description of the significance of potential adverse impacts to each feature identified in (A), including the nature and amount of material the applicant would remove from or place in the waters analyzed in (B);

Response: There will be no impacts to waters of the State during the construction or operation of the Solar Components (see Figure J-2; also see Figure 2 in the RFA 4 Division 27 document [Request for Amendment 4 to the Site Certificate for the Biglow Canyon Wind Farm]).

5.0 Information Supporting Lack of Requirement for Removal-Fill Permit – OAR 345-021-0010(1)(j)(D)

OAR 345-021-0010(1)(j)(D) If the proposed facility would not need a removal-fill authorization, an explanation of why no such authorization is required for the construction and operation of the proposed facility;

Response: There will be no impacts to waters of the State during the construction or operation of the Solar Components, so no Removal-Fill Permit is needed (see Figure J-2; also see Figure 2 in the RFA 4 Division 27 document [Request for Amendment 4 to the Site Certificate for the Biglow Canyon Wind Farm]).

6.0 Information Supporting Issuance of Removal-Fill Permit – OAR 345-021-0010(1)(j)(E)

OAR 345-021-0010(1)(j)(E) If the proposed facility would need a removal-fill authorization, information to support a determination by the Council that the Oregon Department of State Lands should issue a removal-fill permit, including information in the form required by the Department of State Lands under OAR Chapter 141 Division 85; and

Response: There will be no impacts to waters of the State during the construction or operation of the Solar Components (see Figure J-2; also see Figure 2 in the RFA 4 Division 27 document [Request for Amendment 4 to the Site Certificate for the Biglow Canyon Wind Farm]).

7.0 Mitigation and Monitoring Program – OAR 345-021-0010(1)(j)(F)

OAR 345-021-0010(1)(j)(F) A description of proposed actions to mitigate adverse impacts to the features identified in (A) and the applicant's proposed monitoring program, if any, for such impacts.

Response: There will be no impacts to waters of the State during the construction or operation of the Solar Components, so no mitigation or monitoring is required.

8.0 References

- EPA (U.S. Environmental Protection Agency) and USACE (U.S. Army Corps of Engineers). 2011. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States*.
<http://www.epa.gov/owow/wetlands/pdf/RapanosGuidance6507.pdf>
- Nadeau, Tracie-Lynn. 2015. Streamflow Duration Assessment Method for the Pacific Northwest. EPA 910-K-14-001, U.S. Environmental Protection Agency, Region 10, Seattle, Washington.
- NRCS (Natural Resources Conservation Service). 2024. Web Soil Survey. United States Department of Agriculture, Natural Resources Conservation Service.
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed July, 2024.
- 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, Vicksburg, Mississippi.
- USACE. 2005. Regulatory Guidance Letter (RGL) 05-05 Ordinary High Water Mark Identification. December 2005.
- 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, Mississippi: U.S. Army Engineer Research and Development Center.
<https://usace.contentdm.oclc.org/utils/getfile/collection/p266001coll1/id/7627>
- USGS (U.S. Geological Survey). 2024. The National Hydrography Dataset (NHD). National Geospatial Data Asset service via ArcGIS Online. <https://apps.nationalmap.gov/downloader/#/>
Accessed July 2024.
- USFWS (U.S. Fish and Wildlife Service). 2024. National Wetland Inventory Wetlands Mapper. Wetlands Data by State, Oregon. U.S. Fish and Wildlife Service.
<http://www.fws.gov/wetlands/Data/Mapper.html>. Accessed July, 2024.

Figures

**Biglow Canyon
Wind Farm Request
for Amendment #4**


Figure J-1
National Wetlands Inventory
and National Hydrography
Dataset


SHERMAN COUNTY, OR


 Solar Micrositing Area


• City/Town


Wetlands and Waters

 Freshwater Emergent
Wetland (NWI)

 Freshwater Forested/
Shrub Wetland (NWI)

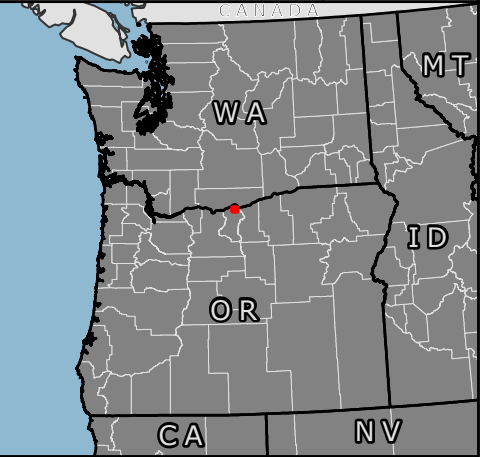
 Freshwater Pond (NWI)

 Riverine (NWI)

 Intermittent Stream
(NHD)



Reference Map



1:24,000

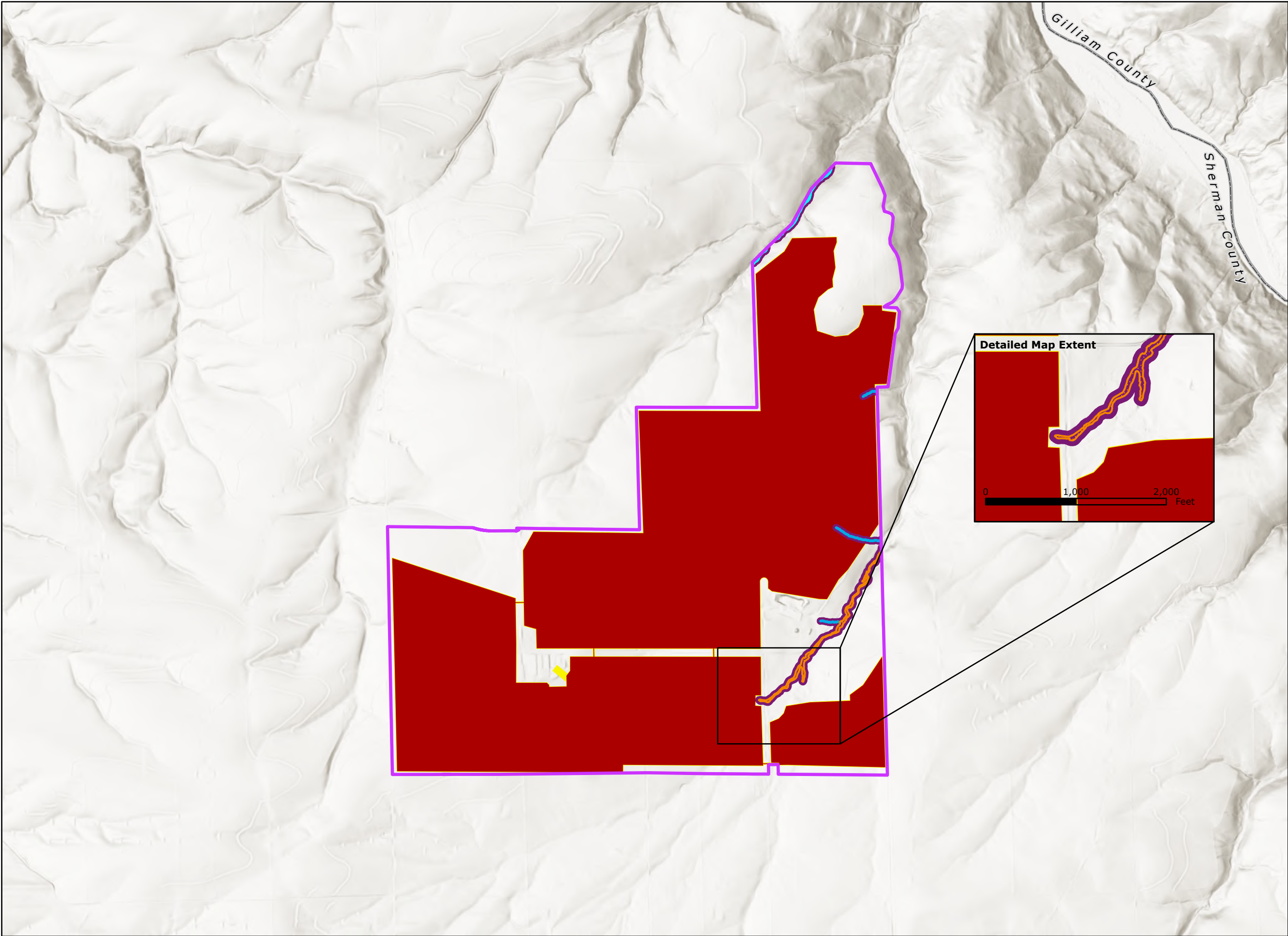
WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

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**Biglow Canyon
Wind Farm Request
for Amendment #4**

**Figure J-2
Delineated Wetlands
and Waters**

SHERMAN COUNTY, OR

- Solar Micrositing Area
- County Boundary
- City/Town
- Exclusion Zone
- Field Delineated Wetlands (Cowardin; HGM)
 - PSS; Flats
- Field Delineated Waters (Flow Duration)
 - Ephemeral
 - Intermittent
- Impacts
 - Temporary
 - Permanent



Reference Map



1:24,000

WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

Attachment J-1. Wetlands and Other Waters Delineation Report and Concurrence



Oregon

Tina Kotek, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregon.gov/dsl

August 12, 2025

State Land Board

BIGL bn, LLC

Attention: Todd Ellwood

Tina Kotek

Governor

Re: WD # 2025-0012 **Approved**
Wetland Delineation Report for Biglow Canyon Wind Farm
Sherman County; Many Tax Lots, See Table Below

Tobias Read

Secretary of State

Elizabeth Steiner

State Treasurer

Dear Todd Ellwood:

The Department of State Lands has reviewed the wetland delineation report prepared by Tetra Tech Inc for the site referenced above. Please note that the study area includes only a portion of the tax lots described in the table (see the attached maps). Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in Figure 5 and 5.1 – 5.28 of the report. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the study area, three wetlands (WT01 through WT03) and four waterways (ST01 through ST04) were identified. Wetlands WT03 (totaling approximately 4.21 acres) and ST04 are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined).

Wetlands WT01 and WT02 and the ephemeral streams (ST01, ST02, and ST03) are exempt per OAR 141-085-0515(6) and -0510(67); therefore, are not subject to current state Removal-Fill requirements.

This concurrence is for purposes of the state Removal-Fill Law only. We recommend that you attach a copy of this concurrence letter to any subsequent state permit application to speed application review. Federal, other state agencies or local permit requirements may apply as well. The U.S. Army Corps of Engineers will determine jurisdiction under the Clean Water Act, which may require submittal of a complete Wetland Delineation Report.

Please be advised that state law establishes a preference for avoidance of impacts to waters of this state. Because measures to avoid and minimize impacts to waters of this state may include reconfiguring parcel layout and size or development design, we recommend that you work with Department staff on appropriate site design before completing the city or county land use approval process.

This concurrence is based on information provided to the agency. The jurisdictional determination is valid for five years from the date of this letter unless new information necessitates a revision. Circumstances under which the Department may change a determination are found in OAR 141-090-0045 (available on our web site or upon request). In addition, laws enacted by the legislature and/or rules adopted by the Department may result in a change in jurisdiction; individuals and applicants are subject to the regulations that are in effect at the time of the removal-fill activity or complete permit application. The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months of the date of this letter.

Thank you for having the site evaluated. If you have any questions, please contact the Wetland Ecologist, Trevor Griffiths, at (971) 375-8886.

Sincerely,

Daniel Evans

Digitally signed by Daniel
Evans
Date: 2025.08.15 10:38:28
-07'00'

Daniel Evans, PWS
Wetland Ecology Specialist

Enclosures

ec: Katie Pyne, Tetra Tech Inc.
Sherman County Planning Department
Corps of Engineers
Richard Fitzgerald, DSL
Joy Lovett, ODFW

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

A complete report and signed report cover form, along with [applicable review fee](#), are required before a report review timeline can be initiated by the Department of State Lands. All applicants will receive an emailed confirmation that includes the report's unique file number and other information.

Ways to submit report:

- ❖ **Under 50MB** - A single unlocked PDF can be emailed to: wetland.delineation@dsl.oregon.gov.
- ❖ **50MB or larger** - A single unlocked PDF can be uploaded to [DSL's Box.com](#) website. After upload notify DSL by email at: wetland.delineation@dsl.oregon.gov.
- ❖ **OR** a hard copy of the unbound report and signed cover form can be mailed to: Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279.

Ways to pay review fee:

- ❖ By credit card on [DSL's epayment portal](#) after receiving the unique file number from DSL's emailed confirmation.
- ❖ By check payable to the Oregon Department of State Lands attached to the unbound mailed hardcopy **OR** attached to the complete signed cover form if report submitted electronically.

Contact and Authorization Information

☒ Applicant ☐ Owner Name, Firm and Address:

BIGL bn, LLC (subsidiary of BrightNight, LLC)
Attention: Todd Ellwood, Senior Director Permitting

Business phone # (850) 963-6011

Mobile phone # (optional)

E-mail: todd.ellwood@brightnightpower.com

☐ Authorized Legal Agent, Name and Address (if different):

Business phone #

Mobile phone # (optional)

E-mail:

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.

Typed/Printed Name: Todd Ellwood

Signature: Todd Ellwood

Digitally signed by Todd Ellwood
Date: 2025.01.09 14:28:30 -08'00'

Date: 01/09/2025

Special instructions regarding site access: _____

Project and Site Information

Project Name: Biglow Canyon Wind Farm

Latitude: 45.642280

Longitude: 120.607011

decimal degree - centroid of site or start & end points of linear project

Proposed Use:

Solar energy generation and battery storage at existing wind farm

Tax Map # -

Tax Lot(s) See report

Tax Map # -

Tax Lot(s) See report

Project Street Address (or other descriptive location):

2.5 miles northeast of Wasco

Township 02N Range 18E Section 19 QQ

Use separate sheet for additional tax and location information

City: Wasco

County: Sherman

Waterway: N/A

River Mile: N/A

Wetland Delineation Information

Wetland Consultant Name, Firm and Address:

Katie Pyne, Tetra Tech Inc
19803 North Creek Parkway
Bothell, WA 98011

Phone # -

Mobile phone # (if applicable) (425) 273-3098

E-mail: katie.pyne@tetrattech.com

The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge.

Consultant Signature: Katie Pyne

Digitally signed by Katie Pyne
Date: 2025.01.10 10:41:39 -08'00'

Date: 01/10/2025

Primary Contact for report review and site access is ☒ Consultant ☐ Applicant/Owner ☐ Authorized Agent

Wetland/Waters Present?

☒ Yes ☐ No

Study Area size: 3980 acres

Total Wetland Acreage: 4.5800

Check Applicable Boxes Below

☐ R-F permit application submitted

☐ Fee payment submitted \$ _____

☐ Mitigation bank site

☐ Resubmittal of rejected report (\$100)

☒ EFSC/ODOE Proj. Mgr: Christopher Clark

☐ Request for Reissuance. See eligibility criteria. (no fee)

☐ Wetland restoration/enhancement project (not mitigation)

DSL # _____ Expiration date _____

☐ Previous delineation/application on parcel

☐ LWI shows wetlands or waters on parcel

If known, previous DSL # _____

Wetland ID code _____

For Office Use Only

DSL Reviewer: JS

Fee Paid Date: _____ / _____ / _____

DSL WD # 2025-0012

Date Delineation Received: 1 / 10 / 25

DSL App.# _____

Table 1. Tax Lot Numbers within the Study Area

Tax Lot Number	
01N170000100	02N1700008201
01N170000200	02N1700008300
02N1700005100	01N1800001600
02N1700008100	01N1800001601
02N1700008200	02N1800003800
02N1800003900	02N1800004000
02N1800004200	02N1800004300
02N1800004400	02N1800004500
02N1800001600	02N1800001700
02N1800007600	02N1800007900

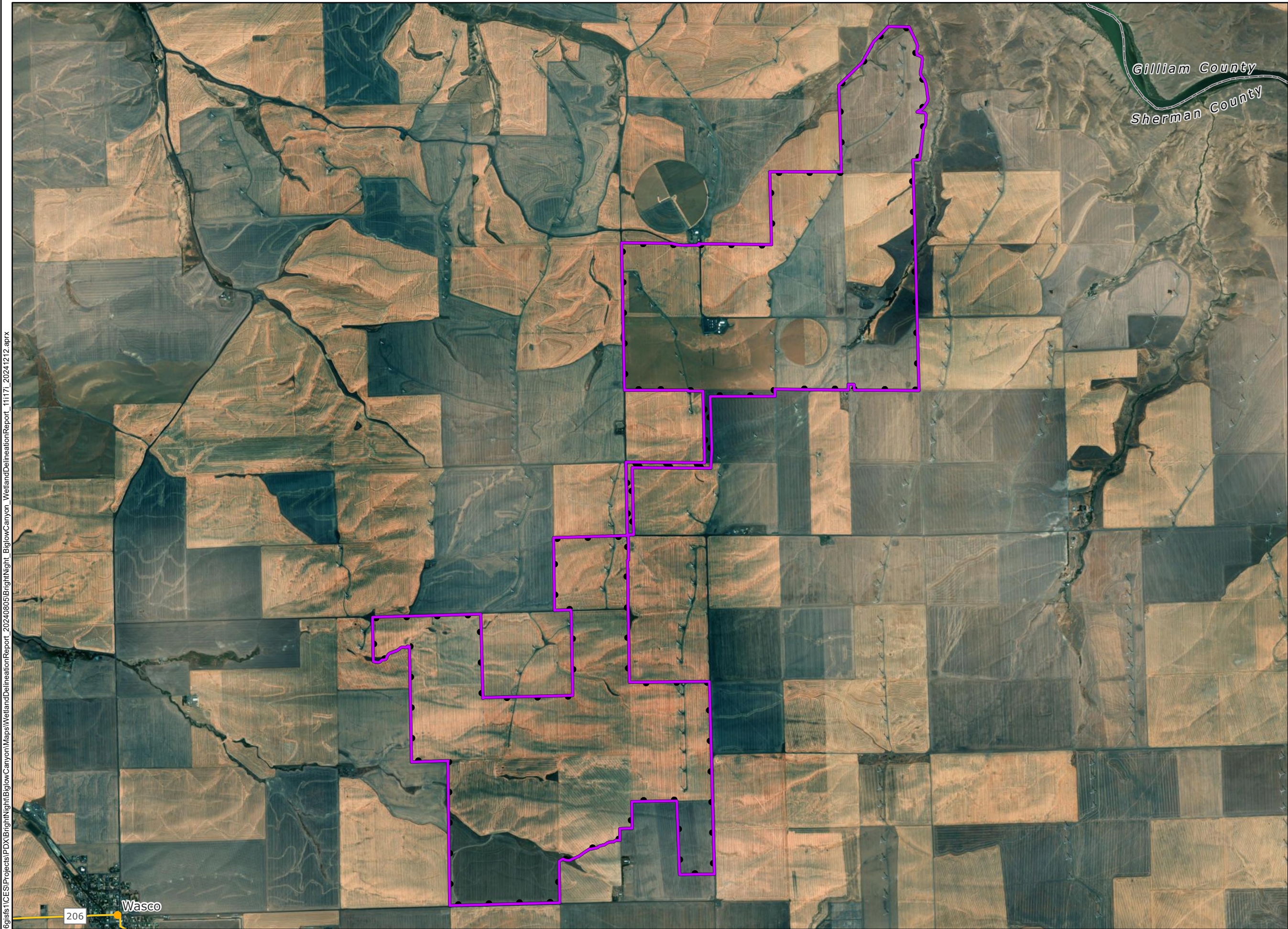
Wetlands Mapped in the Project Study Area

Wetland Name	Cowardin Classification	HGM	Acres	General Conditions
WT01	Palustrine Emergent	Depressional Closed Nonpermanent	0.15	Relatively flat topography at bottom of basin vegetated with dense stand of <i>Hordeum jubatum</i> . No standing water and soils were dry but had redox.
WT02	Palustrine Emergent	Depressional Closed Nonpermanent	0.22	Pond with wetland vegetation (<i>Myriophyllum verticillatum</i>) across water surface and <i>Phragmites australis</i> and <i>Schoenoplectus acutus</i> at edges.
WT03	Riverine Streambed	Riverine Flow Through	4.21	Wetland has riparian canopy made up of silver maple, walnut, and black locust in some locations but is mostly vegetated by reed canary grass (<i>Phalaris arundinacea</i>) and speedwell (<i>Veronica americana</i>).

Waters Mapped in the Project Study Area

Wetland Name	Duration	Length (ft)	Average Width (ft)	General Conditions
ST01	Ephemeral	133	2	Dry ephemeral drainage full of upland vegetation and weeds. Appears to have been used as a trash dump.
ST02	Ephemeral	113	2	Dry ephemeral drainage full of upland vegetation and weeds, including intermediate wheatgrass, cheatgrass, and Russian thistle.
ST03	Ephemeral	331	2	Dry ephemeral drainage full of upland vegetation and weeds including, intermediate wheatgrass, cheatgrass, and Russian thistle.
ST04	Intermittent	2487	3	Delineated using desktop imagery due to access issues. Surveyors could see the stream from the canyon edge and determined that it is intermittent. Narrow and has sagebrush in the riparian area.

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 1
Project Location

SHERMAN COUNTY, OR

- Solar Micrositing Area
- Survey Area
- City/Town
- County Boundary
- State Highway



Data Sources

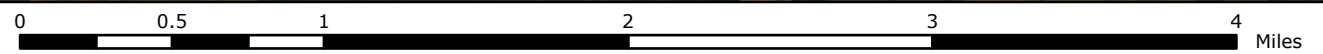
BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Topographic

Reference Map



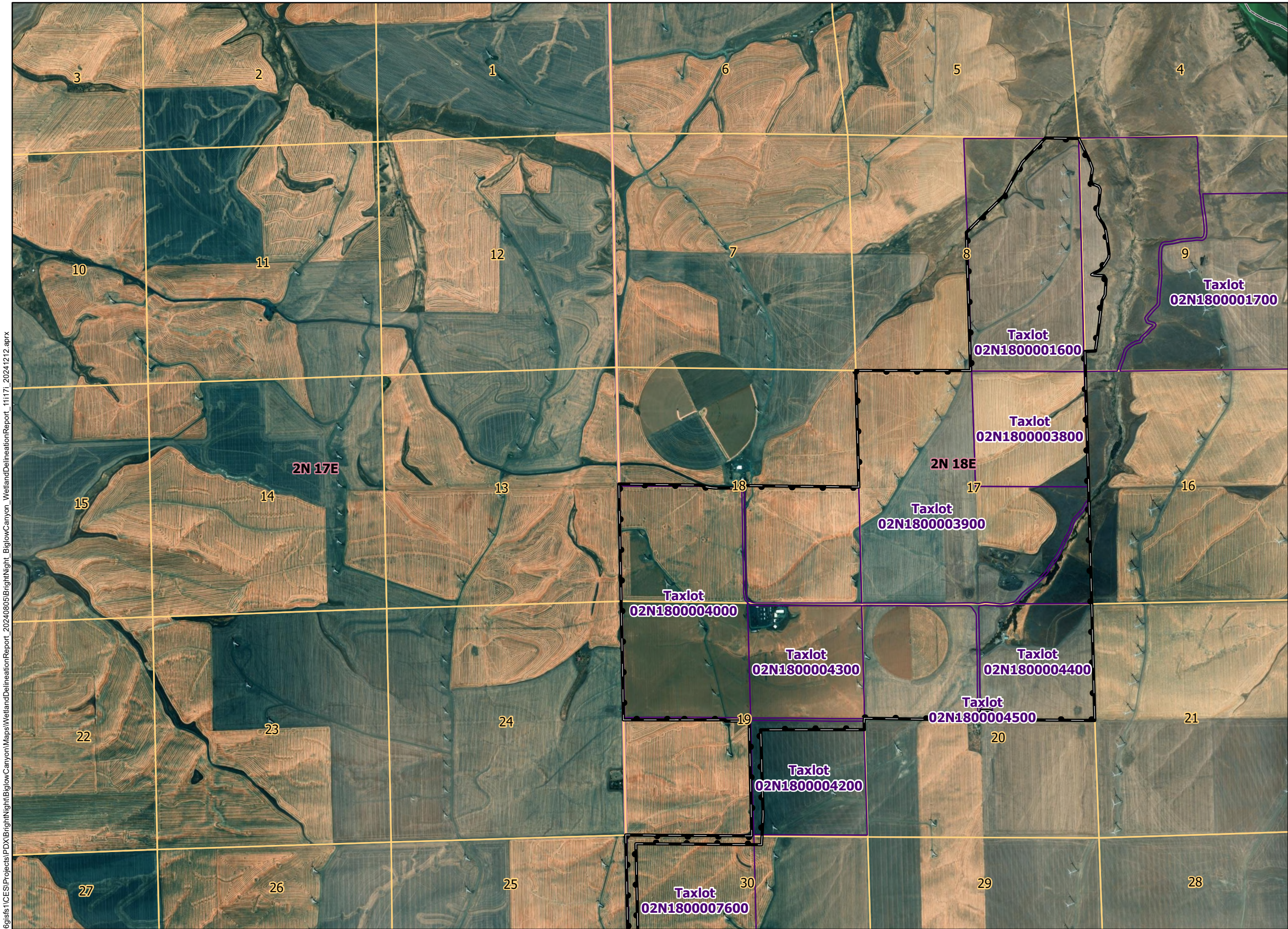
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WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 2.1 Tax Lot Detail Map

SHERMAN COUNTY, OR

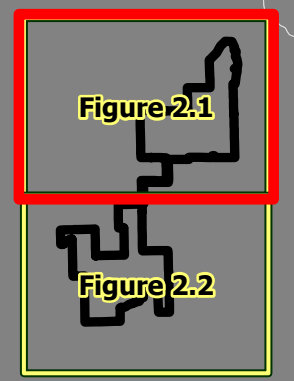
- Study Area
- Taxlot Boundary
- Section
- Township
- County Boundary



Data Sources

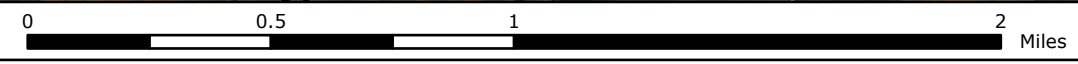
BrightNight-Project Infrastructure: Tiger-Roads;
ESRI-Aerial, Sherman County-Taxlots

Reference Map



1:25,000

WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 2.2 Tax Lot Detail Map

SHERMAN COUNTY, OR

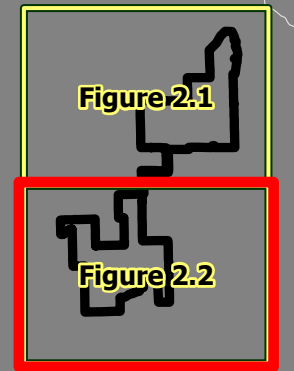
- Study Area
- Taxlot Boundary
- Section
- Township
- County Boundary



Data Sources

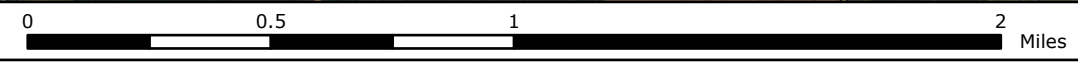
BrightNight-Project Infrastructure: Tiger-Roads;
ESRI-Aerial, Sherman County-Taxlots

Reference Map



1:25,000

WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5 Wetlands and Waters Delineation Map

SHERMAN COUNTY, OR

- Map Grid
- Study Area
- Taxlot Boundary
- County Boundary
- Photo Point
- Sample Plot
- Intermittent
- Ephemeral
- Field Delineated Wetlands (Cowardin; HGM)
 - PEM; Flats
 - PSS; Flats

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are ≤ 1 meter of the ground location.

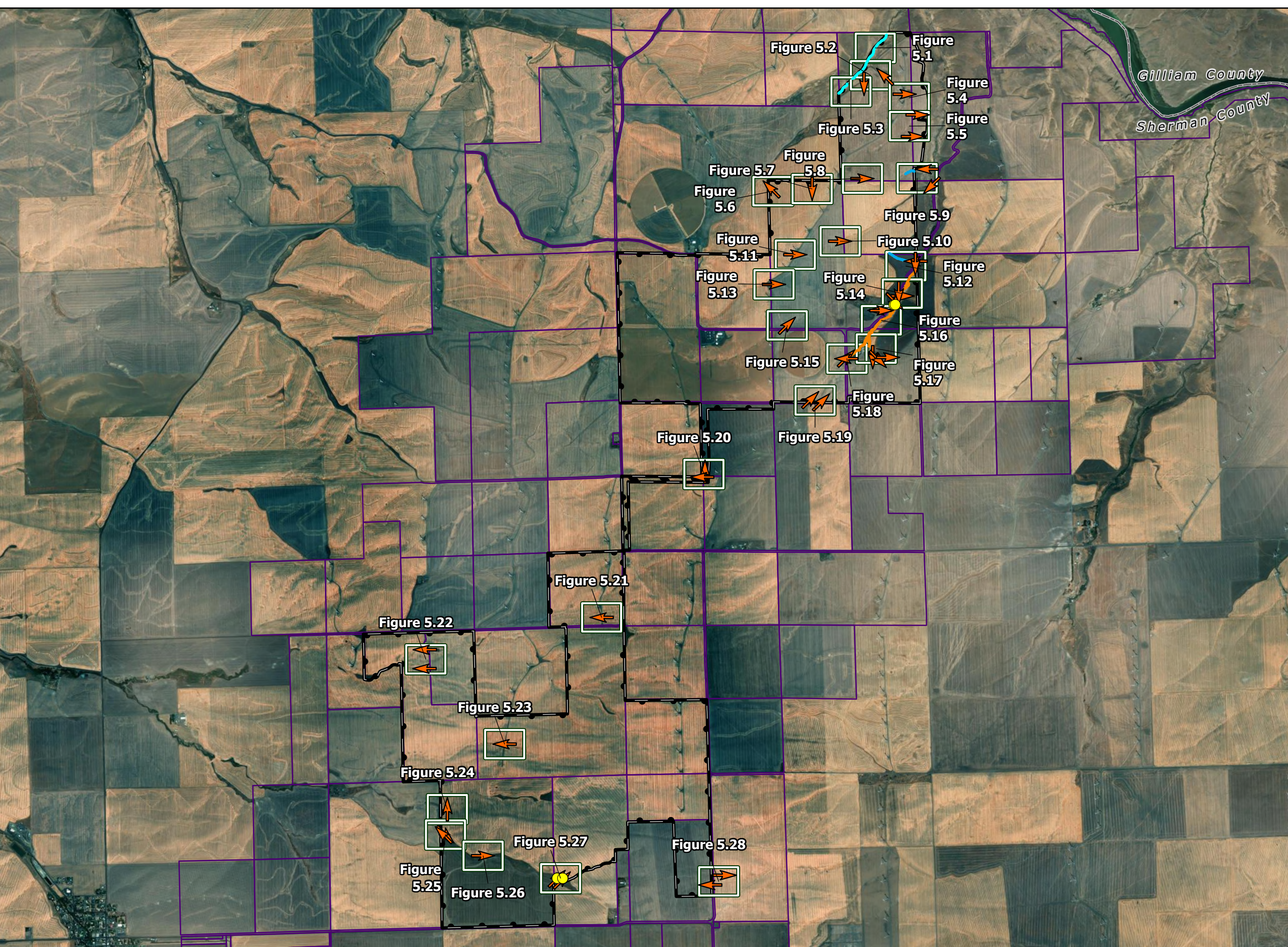
DSL WD # 2025-0012
Approval Issued: 8/12/2025
Approval Expires: 8/12/2030



Data Sources

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial

Reference Map






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**Biglow Canyon
Wind Farm Request
for Amendment 4**

**Figure 5.1
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

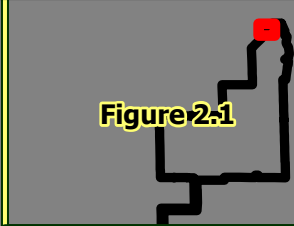
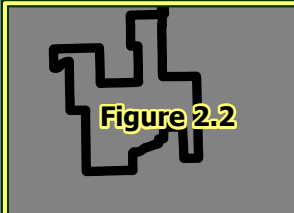
-  Study Area
-  Taxlot Boundary
-  Intermittent

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Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1
	 Figure 2.2



1:1,200

WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION





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**Biglow Canyon
Wind Farm Request
for Amendment 4**

**Figure 5.2
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

-  Study Area
-  Taxlot Boundary
-  Photo Point
-  Intermittent

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Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are ≤ 1 meter of the ground location.

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Approval Expires:8/12/2030



Data Sources

Reference Map

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial

Figure 2.1

Figure 2.2



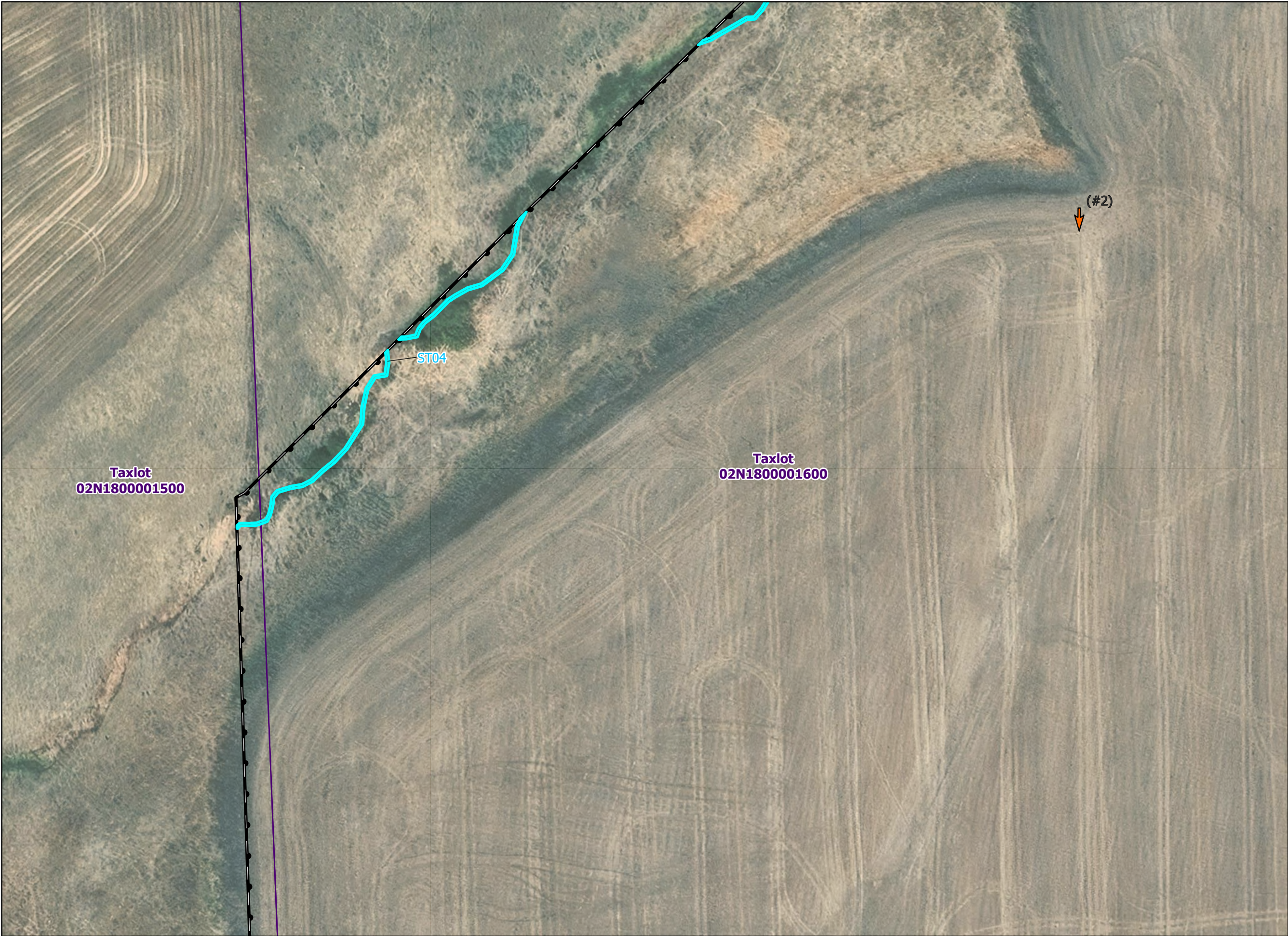
1:1,200

WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

NOT FOR CONSTRUCTION





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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.3
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

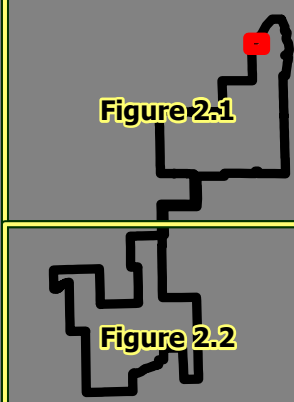
-  Study Area
-  Taxlot Boundary
-  Photo Point
-  Intermittent

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are ≤ 1 meter of the ground location.

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Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.4
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are \leq 1 meter of the ground location.

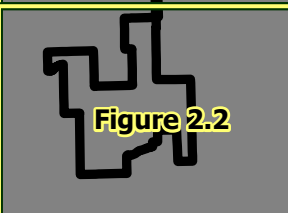
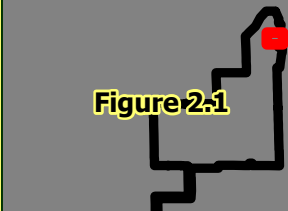
DSL WD # 2025-0012
Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources

Reference Map

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.5
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

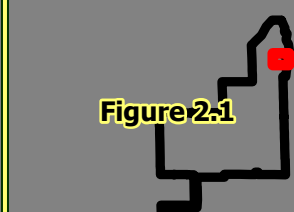
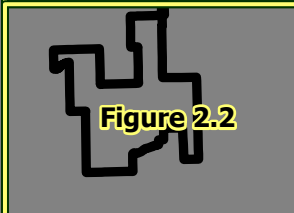
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are \leq 1 meter of the ground location.

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Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1
	 Figure 2.2



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.6
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

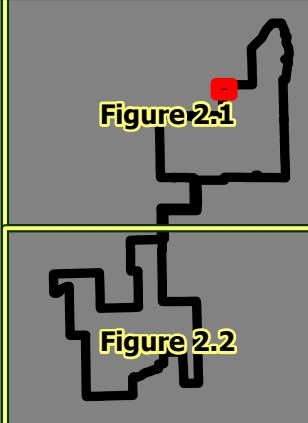
-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are \leq 1 meter of the ground location.

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



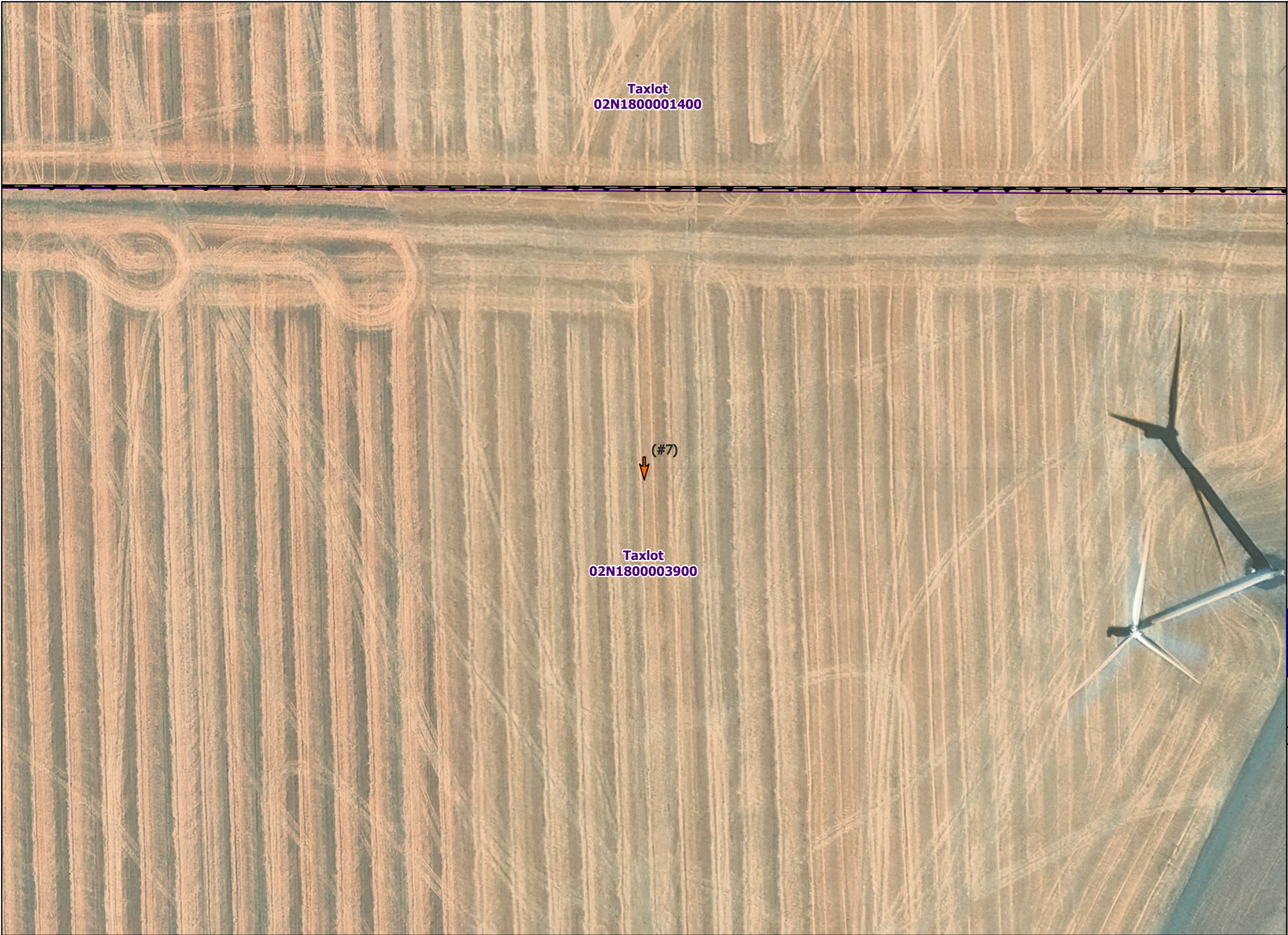
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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.7
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are \leq 1 meter of the ground location.

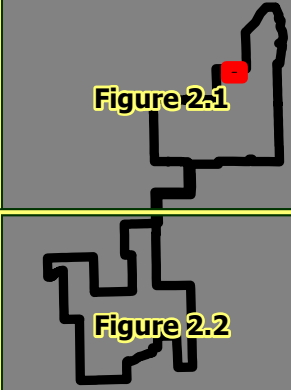
DSL WD # 2025-0012
Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources

Reference Map

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial



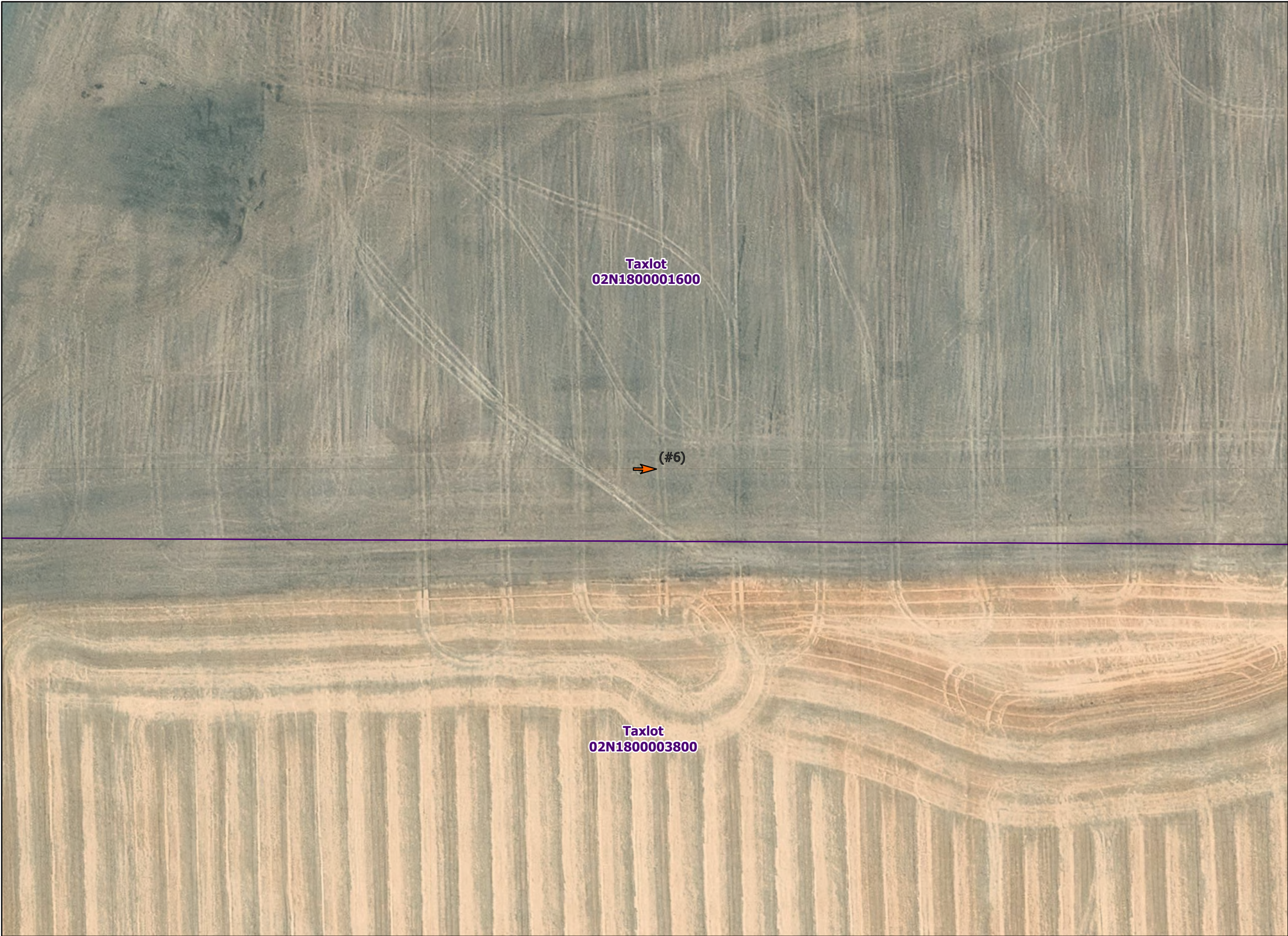
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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.8
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

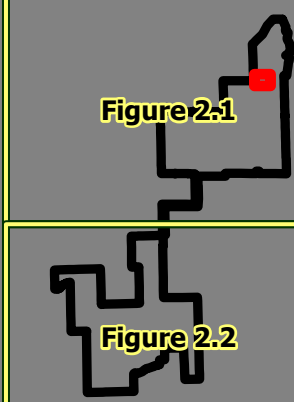
-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.9
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

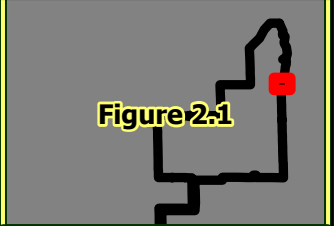
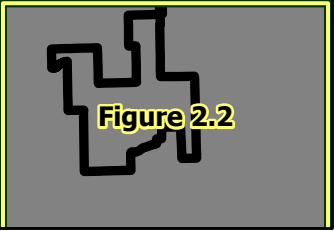
-  Study Area
-  Taxlot Boundary
-  Photo Point
-  Ephemeral

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.10
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

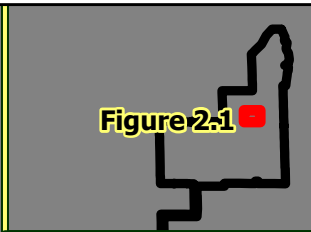
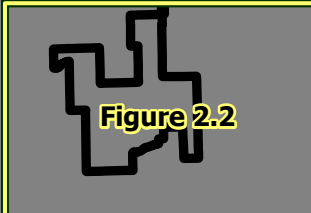
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Wetland boundaries, sample plots, and photo points were collected using a sub-meter grade GPS device collecting real-time, sub-meter GNSS data. Mapped features are ≤ 1 meter of the ground location.

DSL WD # 2025-0012
Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1
	 Figure 2.2



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WGS 1984 UTM Zone 10N



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**Biglow Canyon
Wind Farm Request
for Amendment 4**

**Figure 5.11
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

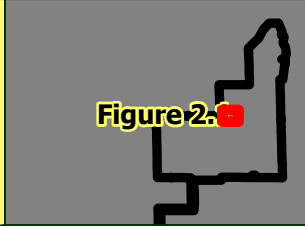
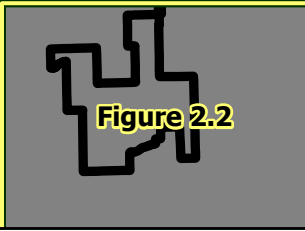
-  Study Area
-  Taxlot Boundary
-  Photo Point

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DSL WD # 2025-0012
Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	
	



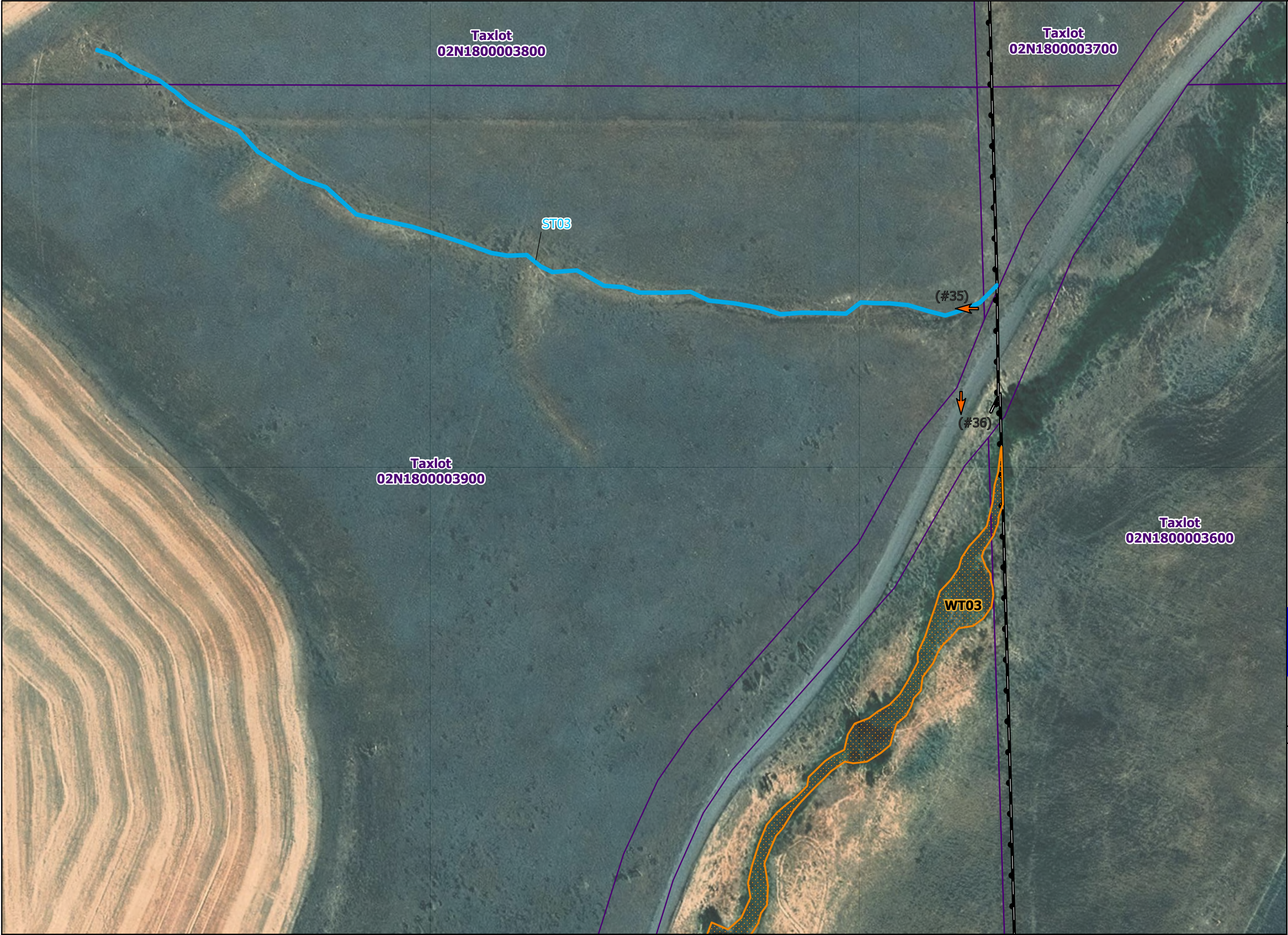
1:1,200

WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION







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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.12
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

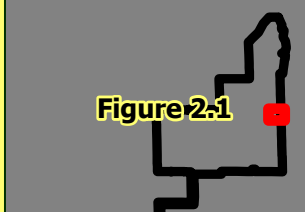
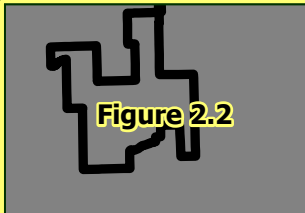
-  Study Area
-  Taxlot Boundary
-  Photo Point
-  Ephemeral
-  Field Delineated Wetlands (Cowardin; HGM)
-  PSS; Flats

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Approval Issued:8/12/2025
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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 



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WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.13
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

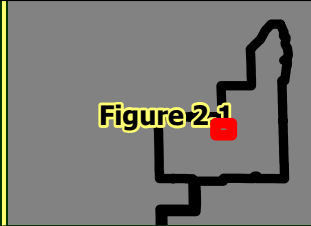
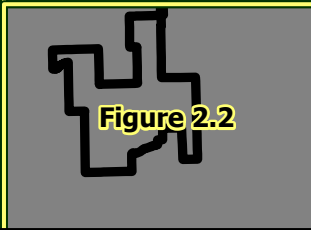
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 



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WGS 1984 UTM Zone 10N



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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.14
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

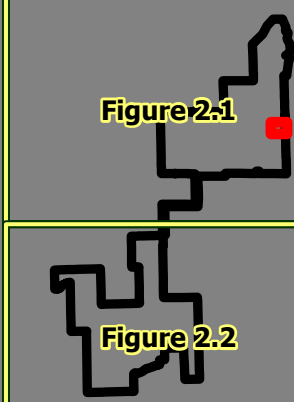
-  Study Area
-  Taxlot Boundary
-  Photo Point
-  Sample Plot
- Field Delineated Wetlands (Cowardin; HGM)
 -  PSS; Flats

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



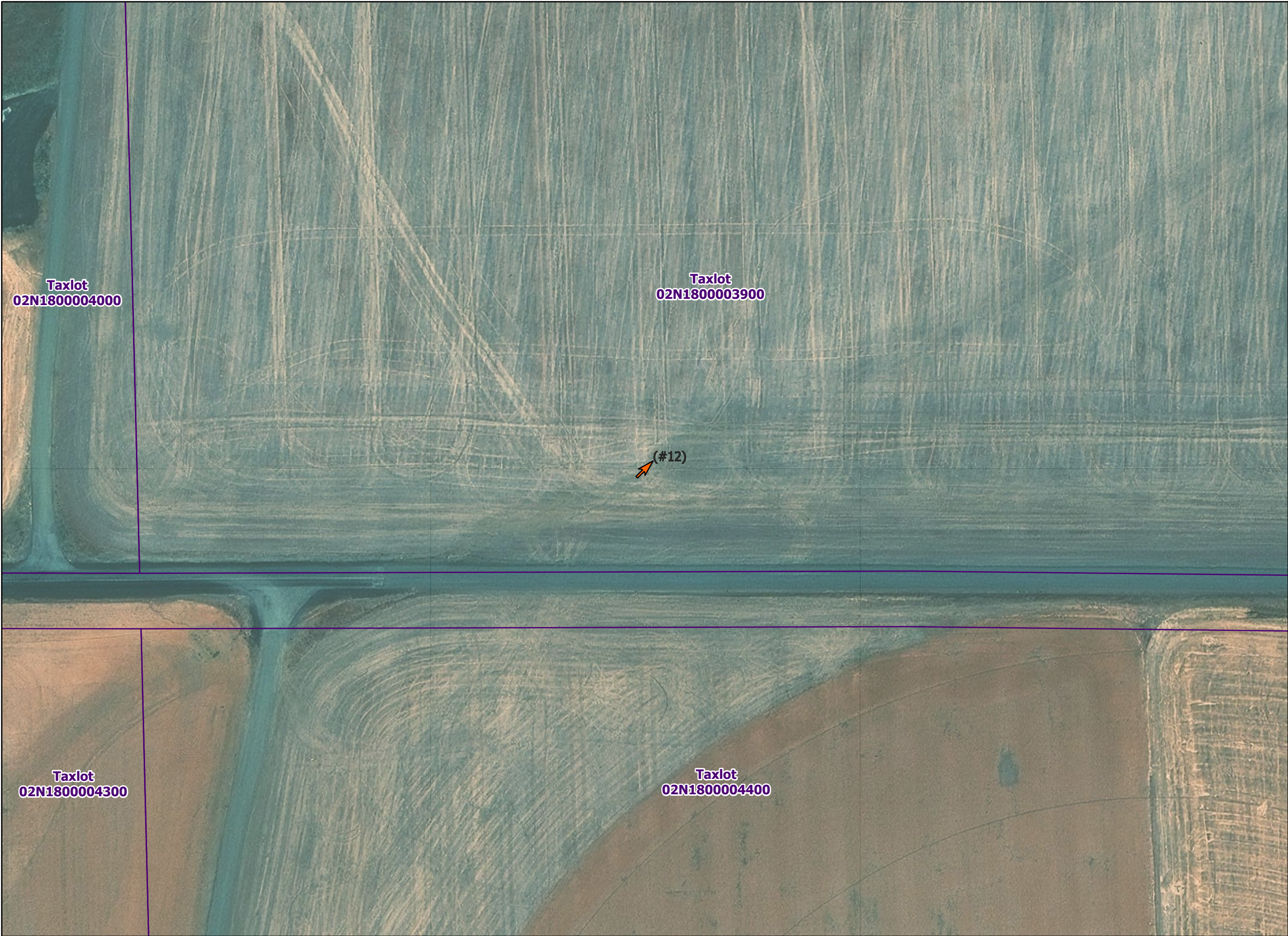
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WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.15
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

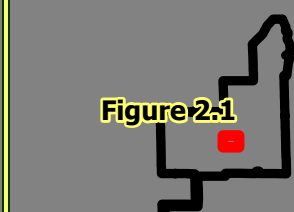
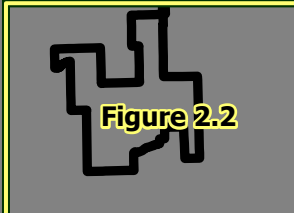
-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1
	 Figure 2.2



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.16
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

- Study Area
- Taxlot Boundary
- Photo Point
- Ephemeral
- Field Delineated Wetlands (Cowardin; HGM)
- PSS; Flats

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Approval Issued:8/12/2025
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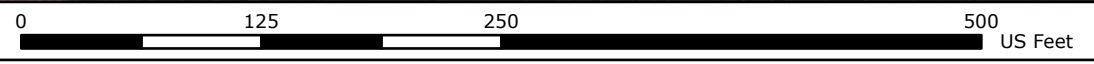


Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N



NOT FOR CONSTRUCTION





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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.17
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

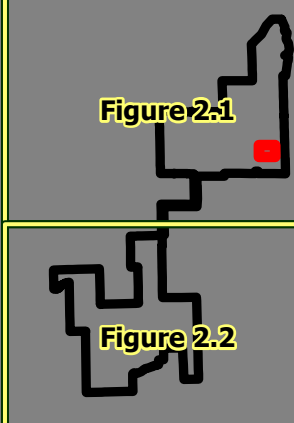
-  Study Area
-  Taxlot Boundary
-  Photo Point
- Field Delineated Wetlands
(Cowardin; HGM)
-  PSS; Flats

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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**Biglow Canyon
Wind Farm Request
for Amendment 4**

**Figure 5.18
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

-  Study Area
-  Taxlot Boundary
-  Photo Point

Field Delineated Wetlands
(Cowardin; HGM)

 PSS; Flats

*All delineated wetlands and waters are
considered to extend outside of the study area
unless otherwise noted*

*Wetland boundaries, sample
plots, and photo points were collected using
a sub-meter grade GPS device collecting real-time,
sub-meter GNSS data. Mapped features are < /= 1
meter of the ground location.*

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources

Reference Map

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial

Figure 2.1

Figure 2.2



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WGS 1984 UTM Zone 10N

0

125

250

500

US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.19
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

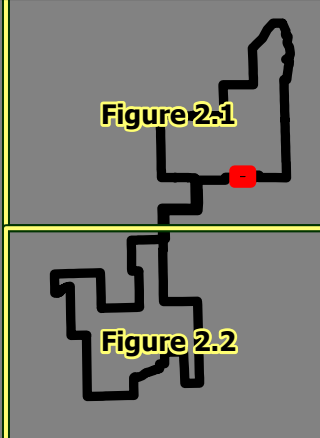
-  Study Area
-  Taxlot Boundary
-  Photo Point

All delineated wetlands and waters are considered to extend outside of the study area unless otherwise noted

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.20
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

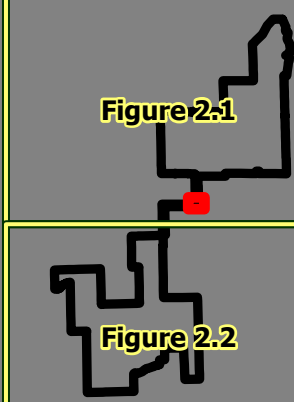
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N




0 125 250 500
US Feet

NOT FOR CONSTRUCTION

Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.21
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

-  Study Area
-  Taxlot Boundary
-  Photo Point

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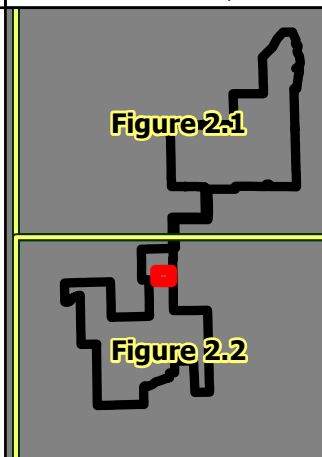
DSL WD # 2025-0012
Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources

BrightNight-Project Infrastructure; Tiger-Roads;
ESRI-Aerial

Reference Map



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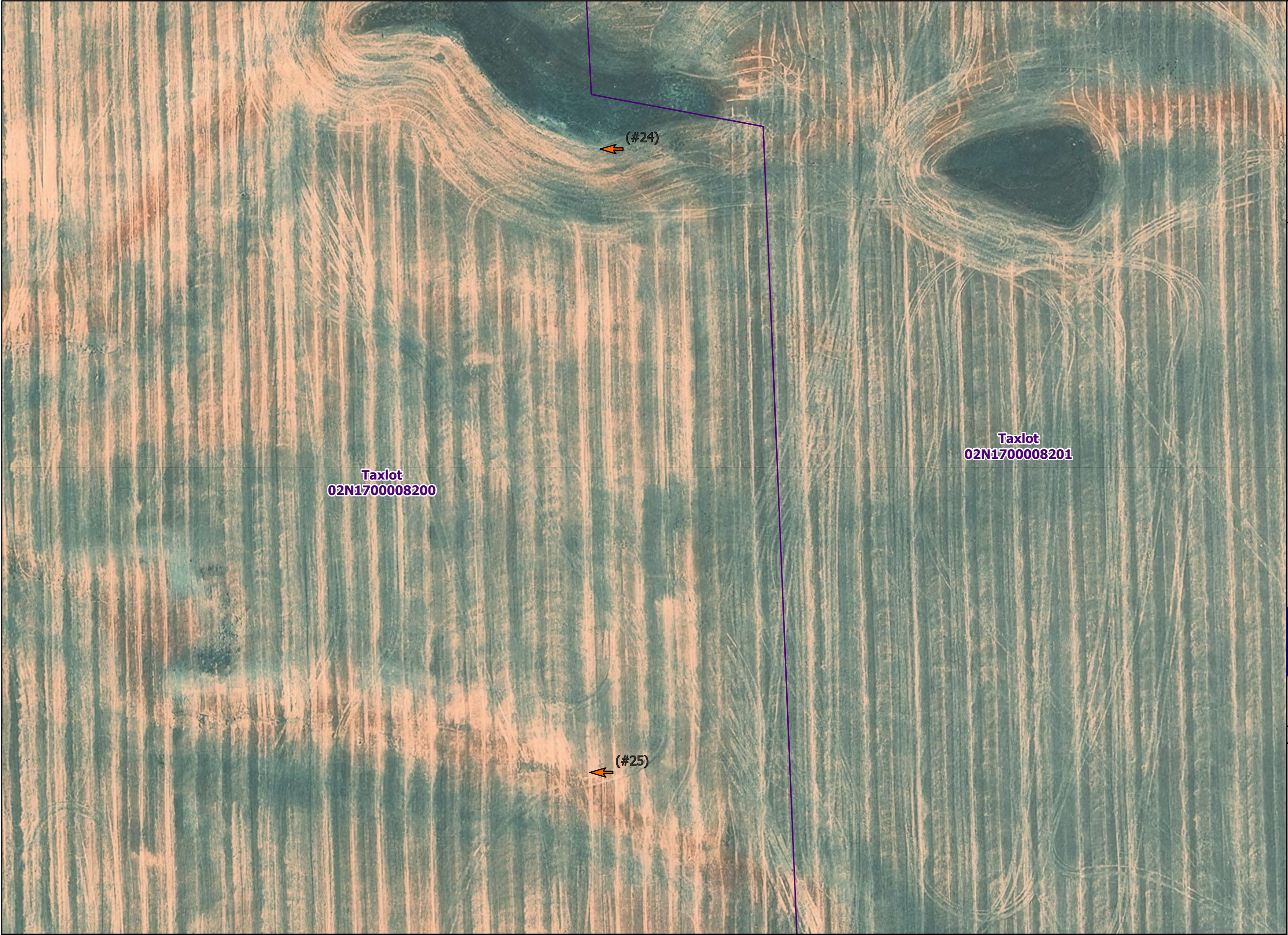
WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

NOT FOR CONSTRUCTION

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Biglow Canyon Wind Farm Request for Amendment 4

**Figure 5.22
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

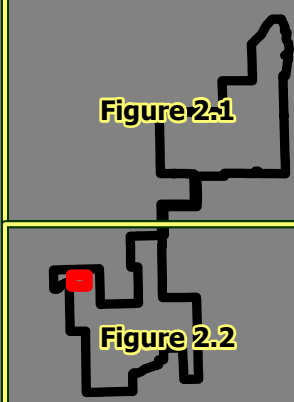
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Approval Issued:8/12/2025
Approval Expires:8/12/2030



Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1 Figure 2.2



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

NOT FOR CONSTRUCTION




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**Biglow Canyon
Wind Farm Request
for Amendment 4**

**Figure 5.23
Wetlands and Waters
Delineation Map**

SHERMAN COUNTY, OR

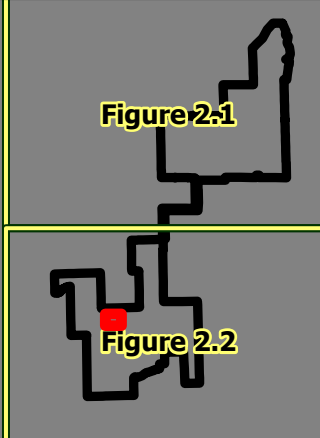
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.24
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

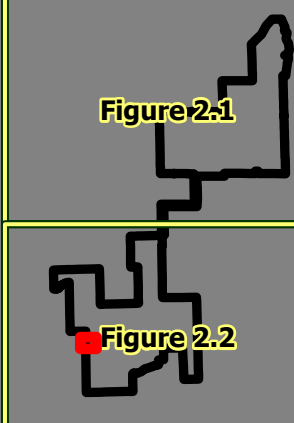
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1 Figure 2.2



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.25
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

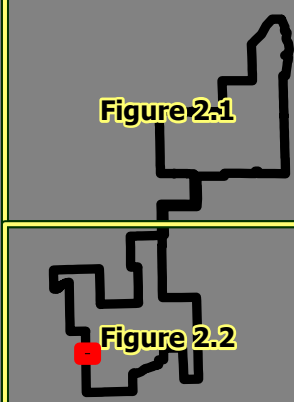
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 Figure 2.1 Figure 2.2



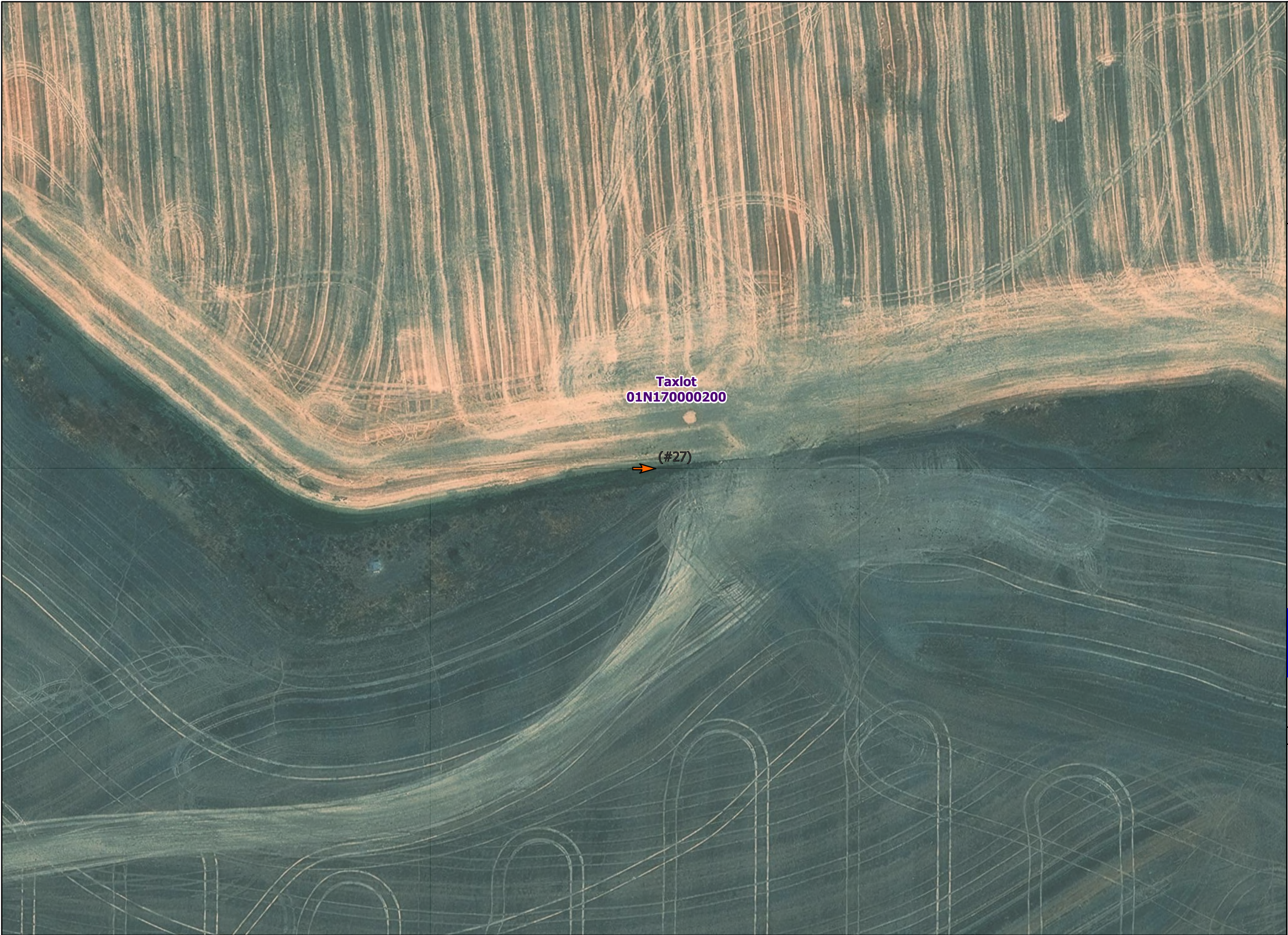
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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.26
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

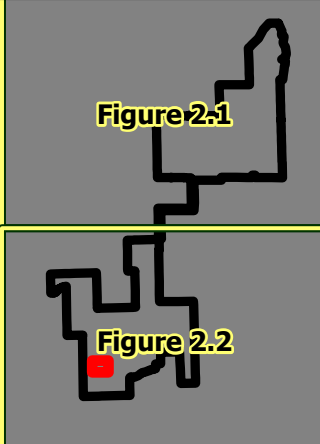
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	



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WGS 1984 UTM Zone 10N

0 125 250 500 US Feet

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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.27
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

- Study Area
- Taxlot Boundary
- Photo Point
- Sample Plot
- Field Delineated Wetlands (Cowardin; HGM)
 - PEM; Flats

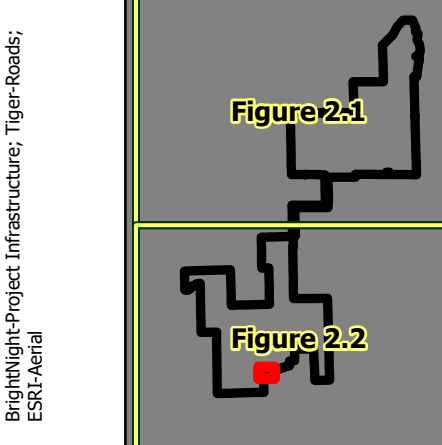
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Data Sources Reference Map



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Biglow Canyon Wind Farm Request for Amendment 4

Figure 5.28
Wetlands and Waters
Delineation Map

SHERMAN COUNTY, OR

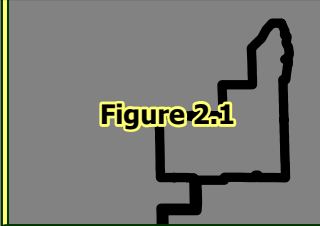
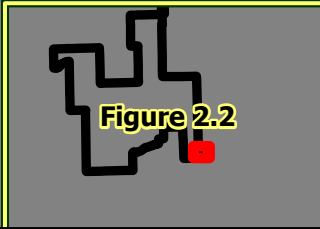
-  Study Area
-  Taxlot Boundary
-  Photo Point

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Data Sources	Reference Map
BrightNight-Project Infrastructure; Tiger-Roads; ESRI-Aerial	 



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WGS 1984 UTM Zone 10N

0 125 250 500
US Feet

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