Exhibit J

Wetlands and Other Jurisdictional Waters

Sams Valley Reinforcement Projects
December 2017

Prepared for

PacifiCorp

Prepared by

Tetra Tech, Inc.

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Acronyms and Abbreviations

CFR	Code of Federal Regulations
EFSC	Energy Facility Siting Council
JPA	Joint Permit Application
OAR	Oregon Administrative Rule
ODOE	Oregon Department of Energy
ODSL	Oregon Department of State Lands
OHWM	Ordinary High Water Mark
ORS	Oregon Revised Statutes
NHD	National Hydrography Dataset
NWI	National Wetlands Inventory
PacifiCorp	PacifiCorp dba Pacific Power
PEM	Palustrine Emergent
PFO	Palustrine Forested
PSS	Palustrine Scrub-Shrub
Project	Sams Valley Reinforcement Projects
USACE	US Army Corps of Engineers
WOS	Waters of the State
WOUS	Waters of the United States

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1.0 Introduction

The Energy Facility Siting Council (EFSC; Council) previously approved the Eugene-Medford 500 kV Transmission Line Project (EFSC 1990), and found that PacifiCorp dba Pacific Power (PacifiCorp) appropriately addressed the requirements for wetlands and other jurisdictional waters. In this Request for Amendment No. 4, PacifiCorp seeks to expand the EFSC-certificated facility boundary to include the Grants Pass–Sams Valley Transmission Line and the Sams Valley Substation for the Sams Valley Reinforcement Projects (Project). The analysis in this exhibit focuses on the Project described in *Written Request for Amendment #4 Eugene–Medford 500 kV Transmission Line* (Request).

For the purposes of Exhibit J, the Site Boundary has been divided into a Study Area that includes two subsections: the new Sams Valley Substation portion of the Study Area (Substation Study Area), and the transmission line portion of the Study Area (Transmission Line Study Area).

Exhibit J was prepared to meet the submittal requirements for the Project, per Oregon Administrative Rule (OAR) 345-021-0010(1)(j), related to wetlands and other jurisdictional waters.

2.0 Site Certificate Condition Compliance

The Third Amended Site Certificate did not impose conditions designed to reduce or avoid potential impacts to wetlands. PacifiCorp recommends the following conditions for this resource:

- **Waters of this State Condition 1**: Prior to construction, the site certificate holder shall obtain from the Oregon Department of State Lands a Removal-Fill Permit.
- **Waters of this State Condition 2:** During construction, the site certificate holder shall conduct all work in compliance with a Removal-Fill Permit.

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:

(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.

3.1 Definitions

3.1.1 Federal

Waters of the United States (WOUS) are defined in 33 Code of Federal Regulations (CFR) § 36 328.3(a)(1-7) as:

1. All waters which are 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. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c) Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOUS under the definition;
5. Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;
6. The territorial seas; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

Wetlands are defined federally at 33 CFR § 328.3(b) 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 Statutes (ORS) 196.800(14) defines WOS more broadly than federal WOUS. Specifically, WOS 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."

The Oregon Department of State Land's (ODSL) definition of wetlands mirrors the federal definition; see OAR 141-085-0510 (101).

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 Project, 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 WOS if they contain food or game fish and are connected to WOS (OAR 141-085-0515(8)) and WOUS if they connect to other WOUS and are not ephemeral (EPA and USACE 2011).

Ephemeral streams are defined in the Streamflow Duration Assessment Method for the Pacific Northwest (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(46)). Food-producing streams are typically one stream order above a fish-bearing stream.

Based on the definitions of jurisdictional waters given above, intermittent streams are likely to be jurisdictional under federal regulations if they have physical characteristics such as discernible banks, evidence of sustained surface flow for at least three consecutive months of the year, and a surface water connection to other WOUS.

This Exhibit presents PacifiCorp's best professional judgment as to which water features in the Substation Study Area and Transmission Line Study Area are jurisdictional under ODSL regulation. Concurrence on the jurisdictional status of features in the Substation Study Area was received from ODSL in October 2015, but as of the date of this application submittal, has not been received from the U.S. Army Corps of Engineers (USACE). Concurrence on the jurisdictional status of wetlands and streams in the Transmission Line Study Area will be determined following ODSL's review of the wetland delineation that was performed in November 2017. While Exhibit J uses the term

"jurisdictional waters," PacifiCorp recognizes that any final determination of agency jurisdiction will be made by ODSL and USACE separately, based on the information presented by PacifiCorp.

3.3 Desktop Study

PacifiCorp conducted a review of existing literature, maps, and other materials to identify potentially jurisdictional wetlands and other waters within the Substation and Transmission Line study areas prior to initiating the field review.

Existing documents reviewed included:

- US Geological Survey Topographic – Sams Valley quadrangle map (USGS 1983);
- National Wetland Inventory (USFWS 2004, 2014);
- National Hydrography Dataset (USGS 2012)
- Soil survey report of Jackson County, Oregon (Johnson 1993);
- Hydric soil list for Jackson County, Oregon (NRCS 2014);
- Historic and current aerial images (Attachments J-1 and J-3); and
- Precipitation data from National Oceanic and Atmospheric Administration National Weather Service Forecast for Medford, Oregon (NOAA 2014).

3.4 Delineation of Wetlands and Other Water Features

Some of the Project Site Boundary extends beyond the original area surveyed for this Project. Portions of the Site Boundary remain unsurveyed due to access denials, submerged lands, and Project re-design that occurred after surveys were completed (Attachment J-2, Figure J-2).

Attachments J-1, J-2, and J-3 provide descriptions of the Project wetlands and other water features, as well as anticipated wetland impacts. Maps showing locations of these features are presented in Figure J-2.

3.4.1 Methods

3.4.1.1 Substation Study Area

Wetland areas were delineated using the methods described in the USACE *Wetlands Delineation Manual* (Environmental Laboratory 1987), and using the *Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Environmental Laboratory 2010). Wetlands were initially delineated in the Substation Study Area over September 9 through September 11, 2014 (Attachment J-2). An additional field visit was conducted on September 1 and 2, 2015, following feedback from ODSL on the Substation Wetland Delineation Report included in the Joint Permit Application (JPA; Attachment J-1), where they provided a comment that the Arid West Supplement and Arid plant lists were more applicable to the Rogue Valley; however, using the Arid West Regional Supplement for this delineation would not have

affected the results (see the Supplemental Wetland Delineation Update Memo included in Attachment J-1). PacifiCorp conducted a third round of site investigations on December 12, 2016 to address concerns raised by USACE during their review of the JPA.

Sample plots were selected by initial observation of topographic depressions, wetland characteristics (including the presence of hydrophytic vegetation), visual evidence of hydrology, and examination of soil samples. At sites exhibiting positive indicators of wetland characteristics, multiple soil pits were dug and the results used in conjunction with vegetative and hydrologic indicators to aid in the determination of wetland boundaries and location of plots. Sample plots were also taken in areas of lowest topographic areas or other locations to confirm the presence and characteristics of uplands in the Substation Study Area. The functions of wetlands that have the potential to be directly impacted by the Project were assessed using the Oregon Rapid Wetland Assessment Protocol (Adamus et al. 2010).

The ordinary high water mark (OHWM) for waters in the Substation Study Area was determined in the field using the methodology outlined in the Corps Regulatory Guidance Letter 05-05 (USACE 2005). The USACE guidance is consistent with the definition of OHWM put forth by ODSL. For purposes of the Clean Water Act, the OHWM is "that line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE 2005). These indicators were observed in the field and used to determine the location of the OHWM.

Detailed descriptions of the delineation methods for wetlands and other waters are provided in the Substation Study Area Wetland Delineation Report found in Attachment J-1. The Substation Study Area Wetland Delineation Report was submitted to ODSL in April 2015, supplemented in September 2015, and received written concurrence from ODSL in October 2015 (see Attachment J-1).

3.4.1.2 Transmission Line Study Area

Methods used during the delineation of wetlands and streams in the Transmission Line Study Area were consistent with the methods listed for the Substation Study Area. Wetlands were delineated in the Transmission Line Study Area from November 8 through 10, 2017 (see Attachment J-2). Detailed descriptions of delineation methods for wetlands and other waters are provided in the Transmission Line Study Area Wetland Delineation Report (Attachment J-3). PacifiCorp is scheduled to directly submit the Transmission Line Study Area Wetland Delineation Report to ODSL in January 2018.

The Site Boundary includes areas that were added to the Project after the November 2017 wetland delineation had begun. These areas are considered unsurveyed. A subsequent desktop analysis was completed in December 2017 for the unsurveyed areas, and the results of the desktop survey are included in Attachment J-2. The desktop analysis used existing data from the NWI and the NHD to identify mapped wetlands and streams inside the unsurveyed areas.

3.4.2 Results

3.4.2.1 Substation Study Area

Based on the results of the site investigations, three wetlands and one non-wetland water (an ephemeral ditch) were delineated within the Substation Study Area; however, only two wetlands and the ditch fall within the Site Boundary. Attachment J-1 and Figure J-2 provide additional detail about each of the wetlands, including the ephemeral ditch.

3.4.2.2 Transmission Line Study Area

A total of eight wetlands and 52 other waters were field-delineated within the Transmission Line Study Area. It is anticipated that all wetlands and other waters within the transmission line portions of the Site Boundary will be spanned or otherwise avoided; therefore, no impacts will occur to jurisdictional features. The Transmission Line Wetland Delineation Report is included in Attachment J-3. Figure J-2 and Attachment J-2 describe wetlands and other waters within the Transmission Line Study Area, including features identified during the desktop analysis in areas that were not surveyed.

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

(B) An analysis of whether construction or operation of the proposed facility would adversely affect any waters of this state.

This section describes PacifiCorp's avoidance and minimization activities. The Project has the potential to adversely affect waters of the state (WOS), as defined under OAR 141-085-0510. PacifiCorp has worked to avoid and minimize potential impacts, and will continue to do so through Project construction.

4.1 Avoidance and Minimization

4.1.1 Substation Study Area

PacifiCorp conducted an alternatives analysis, and considered a range of sites, some of which resulted in fewer aquatic impacts when compared to the proposed site. Each alternative was evaluated and compared to the proposed site, and reasons for dismissing each alternative are provided in the 404(b)(1) Alternatives Analysis, Attachment F to the JPA (see Attachment J-1).

In addition, the following design considerations were made in an effort to minimize wetland impacts at the site:

- Sams Valley Substation's proposed access road was originally designed to be farther away from the Site Boundary, resulting in additional impacts to Wetlands B and C. The access

road was subsequently modified, by bringing it closer into the substation in order to minimize the overall Project footprint and avoid unnecessary wetland impacts.

- The Sams Valley Substation has been designed to fit into the smallest footprint possible, and there are no additional design changes that would result in a smaller substation footprint.

4.1.2 Transmission Line Study Area

Construction activities associated with the transmission line will use existing access roads and will largely be located within the existing transmission line right-of-way. No wetlands or other waters delineated in the field or identified through desktop analysis will be impacted by the Project. Transmission lines will span all wetlands and streams, and new towers and existing road access will be located in upland areas of the Project. The Alternatives Analysis for the Transmission Line Study Area is provided in the 404(b)(1) Alternatives Analysis, Attachment F to the JPA (see Attachment J-1).

4.2 Continued Assessment of Impacts

4.2.1 Substation Study Area

PacifiCorp has avoided and minimized impacts to WOS to the extent practicable within the Substation Study Area.

4.2.2 Transmission Line Study Area

PacifiCorp has avoided and minimized impacts to WOS to the extent practicable within the Transmission Line Study Area.

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

(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).

4.3.1 Substation Study Area

PacifiCorp estimates the construction of the substation would result in permanent impacts to state-jurisdictional wetlands, which are summarized in Table J-1.

Table J-1. Summary of Impacts to Features in the Substation Study Area

Type of Water	Number of Permanent Impact Sites	Permanent (Acres)	Number of Temporary Impact Sites	Temporary (Acres)	Number of Features Impacted
PEM Wetland	2	3.49	0	0	2

The Sams Valley Substation's total area of ground disturbance is 21.25 acres, and grading activities would require 77,725 cubic yards (CY) of removal and 73,410 CY of fill. Of these volumes, 5 CY of removal and 31,029 CY of fill would occur within 3.49 acres of wetlands. The site would be entirely pervious (graveled), and no new impervious surfaces would be created.

Work activities that would occur within wetlands include clearing, grading, installation of erosion control (silt fence or straw wattles) and stormwater management facilities (storm drains and catchment basins), installation of an access road, substation components, perimeter fencing, and yard gravel (yard rock and road rock). Removal activities would be associated with clearing and grading of the site. Fill activities would be associated with the installation of the various facilities or structures listed above (gravel, fence, substation breaker/transformers). Culvert replacement would occur within a non-jurisdictional ditch.

Access would occur via an access road constructed off of Tresham Lane, which wraps around the western boundary of the substation and connects to an existing access road south of Sams Valley Substation. Erosion control measures (e.g., silt fences, straw wattles, stabilized construction entrances) and stormwater management facilities (e.g., retention ponds and lined ditches) will be installed prior to commencement of removal or fill activities in order to minimize sedimentation of wetlands or portions of wetlands that occur outside of the grading limits, but that are within the substation parcel.

The source of fill materials and location of disposal areas are unknown at this time; these will be determined by the selected contractor at a later date and approved by PacifiCorp. Yard rock and road rock would be obtained from a certified, weed-free gravel quarry, and would be pre-washed. Excess materials would be disposed of at an approved upland location, off-site.

Permanent, direct impacts include approximately 20 acres of soil disturbance (clearing and grading), 3.49 acres of permanent wetland fill. Temporary impacts include increased noise, dust, human presence, and vehicular traffic in the immediate area during construction. The location and size of proposed impacts to each feature in the Substation Study Area is listed in Attachment J-2, and are shown on Figure J-2. Table J-2 summarizes the volume of removal and fill for each feature, including the type of material proposed for removal or fill (e.g., native soil, silt, sand, gravel, etc.).

Table J-2. Volume of Removal and Fill to Features in the Substation Study Area

Stream/ Wetland ID	Activity	Channel Length (ft.)	Channel Width (ft.)	Removal Depth (ft.)	Surface Area Impact (sq. ft.)	Removal Volume (cy)	Removal Material	Fill Depth (ft.)	Fill Volume (cy)	Fill Material
Temporary Impacts										
There are no temporary impacts.										
Permanent Impacts										
Wetland B	Clearing and grading	530	280	0	3.4	0	N/A	5.5	30,230	Yard rock and road rock
Wetland C	Clearing and grading	130	30	0	0.09	0	N/A	5.5	794	Yard rock and road rock
TOTALS					**3.49**	**5**			**31,029**	

4.3.2 Transmission Line Study Area

The Project will not impact any wetlands or other waters delineated in the field, nor those identified through desktop analysis. Transmission lines will span all wetlands and streams, and new towers and existing road access will be located in upland areas of the Project.

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

(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.

OAR 345-021-0010(1)(j)(D) requires an explanation if a removal-fill authorization (Removal-Fill Permit) is not needed. Because the Project will require a Removal-Fill Permit, OAR 345-021-0010(1)(j)(D) does not apply.

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

(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.

6.1 Substation Study Area

The Sams Valley Substation requires a Removal-Fill Permit for construction of substation components that impact jurisdictional features. Since both potentially impacted features are wetlands that are considered to be WOS and WOUS, a complete JPA was filed with both ODSL and USACE for their respective review and permit issuance (Attachment J-1). The Substation Wetland Delineation Report was submitted to ODSL in April 2015, and supplemented in September 2015. ODSL provided written concurrence in October 2015 (see Attachment J-1). The Substation Wetland Delineation Report was reviewed by USACE, and comments regarding the report were provided in May 2017. A joint removal-fill permit application was submitted to ODSL and USACE on April 18, 2016 for the Sams Valley Substation (Attachment J-1).

The JPA demonstrates compliance with the criteria of the ODSL Removal-Fill Law and Section 404 of the Clean Water Act, as administered by USACE. For these reasons, PacifiCorp has provided sufficient information to support a determination by EFSC that ODSL should issue the requested Removal-Fill Permit for the Sams Valley Substation. The JPA contains specific details about efforts to avoid or minimize impacts to state water resources (Attachment J-1).

6.2 Transmission Line Study Area

Desktop analysis and wetland field delineations were performed in November 2017 for the Transmission Line Study Area. The Transmission Line Study Area Wetland Delineation Report and revised Joint Permit Application for the Transmission Line Study Area was prepared in December 2017 (Attachment J-3). These were submitted to USACE on December 28, 2017, and is scheduled to be submitted directly by PacifiCorp to ODSL in January 2018. No project impacts to WOS are anticipated within the Transmission Line Study Area.

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

(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.

7.1 Substation Study Area

All removal, fill, and vegetation disturbance in the two potentially impacted wetlands will be permanent. During operation, the Sams Valley Substation will be covered with yard rock and vegetation, and will not be allowed to return to existing conditions. The site would be graded such that stormwater would flow into collector basins, and will then be conveyed through a series of storm drains into retention basins constructed in the northwest and southwest corners of the site.

Wetland impacts will be mitigated through the purchase of mitigation credits from the Rogue Valley Mitigation/Conservation Bank. PacifiCorp has a signed mitigation agreement for the credits, and has paid a deposit to secure the credits at a 1:1 ratio.

7.2 Transmission Line Study Area

No impacts to wetlands and other waters are anticipated for Project construction activities associated with the transmission line. Therefore, no mitigation for WOS will be required.

8.0 References

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Figures

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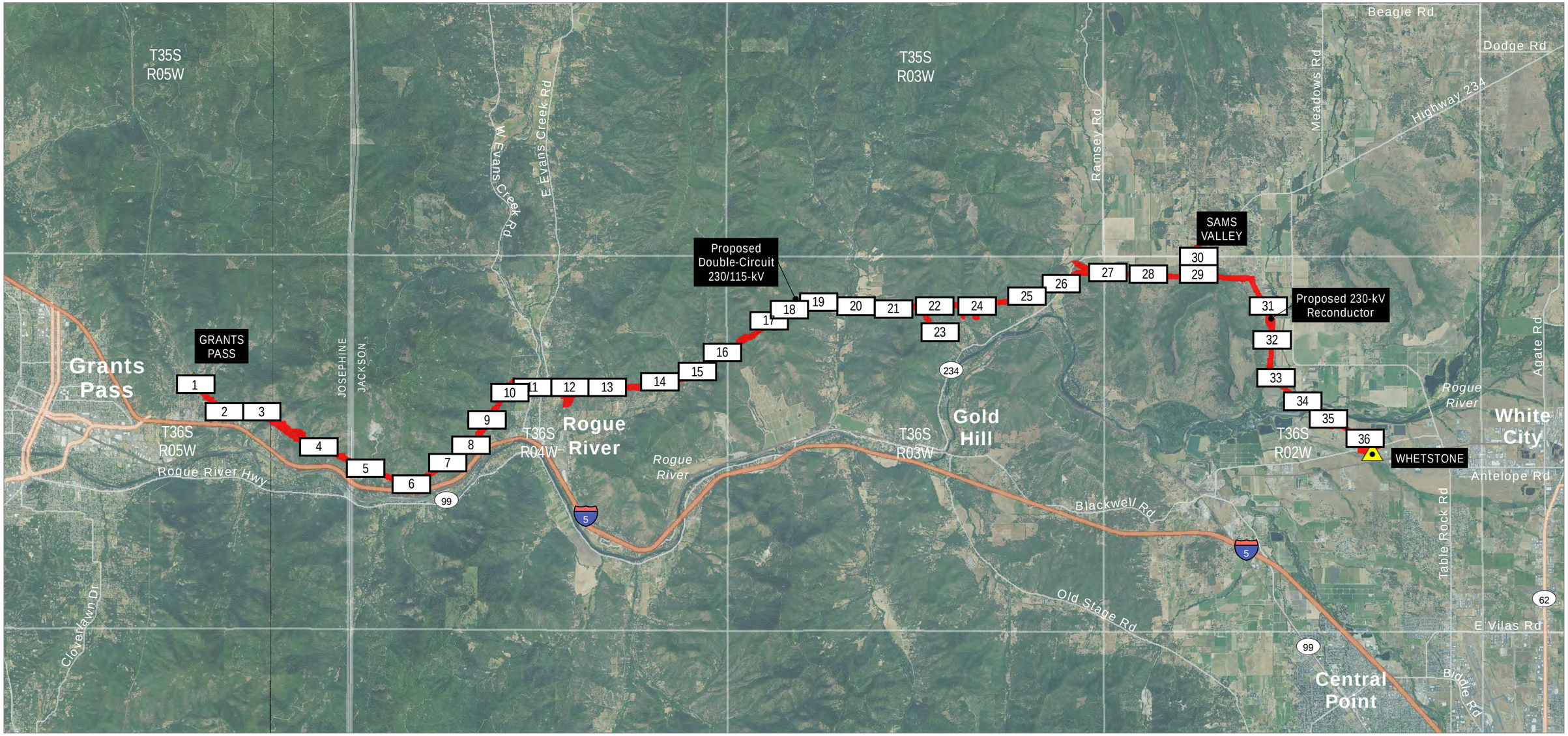

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Miles

Map Area

Source(s): Esri, PacifiCorp, USDA

Disclaimer: No warranty is made as to the accuracy or completeness of the data shown, and its use is not intended for other than the stated purpose.

F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Index_Delineated Waters and Wetlands.mxd December 2017

Project Features

- Site Boundary
- Map Index

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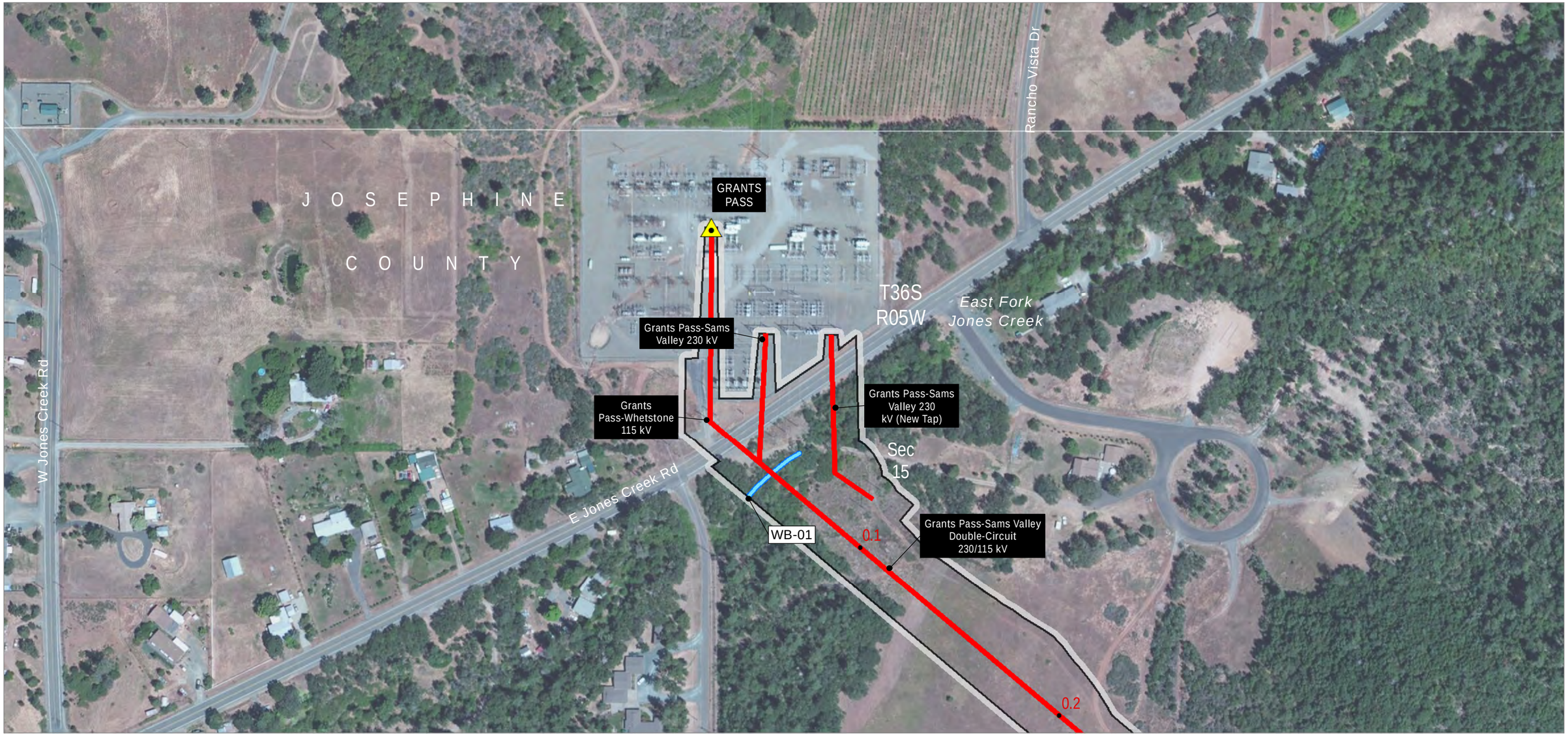
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Map Index

Figure J-2



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Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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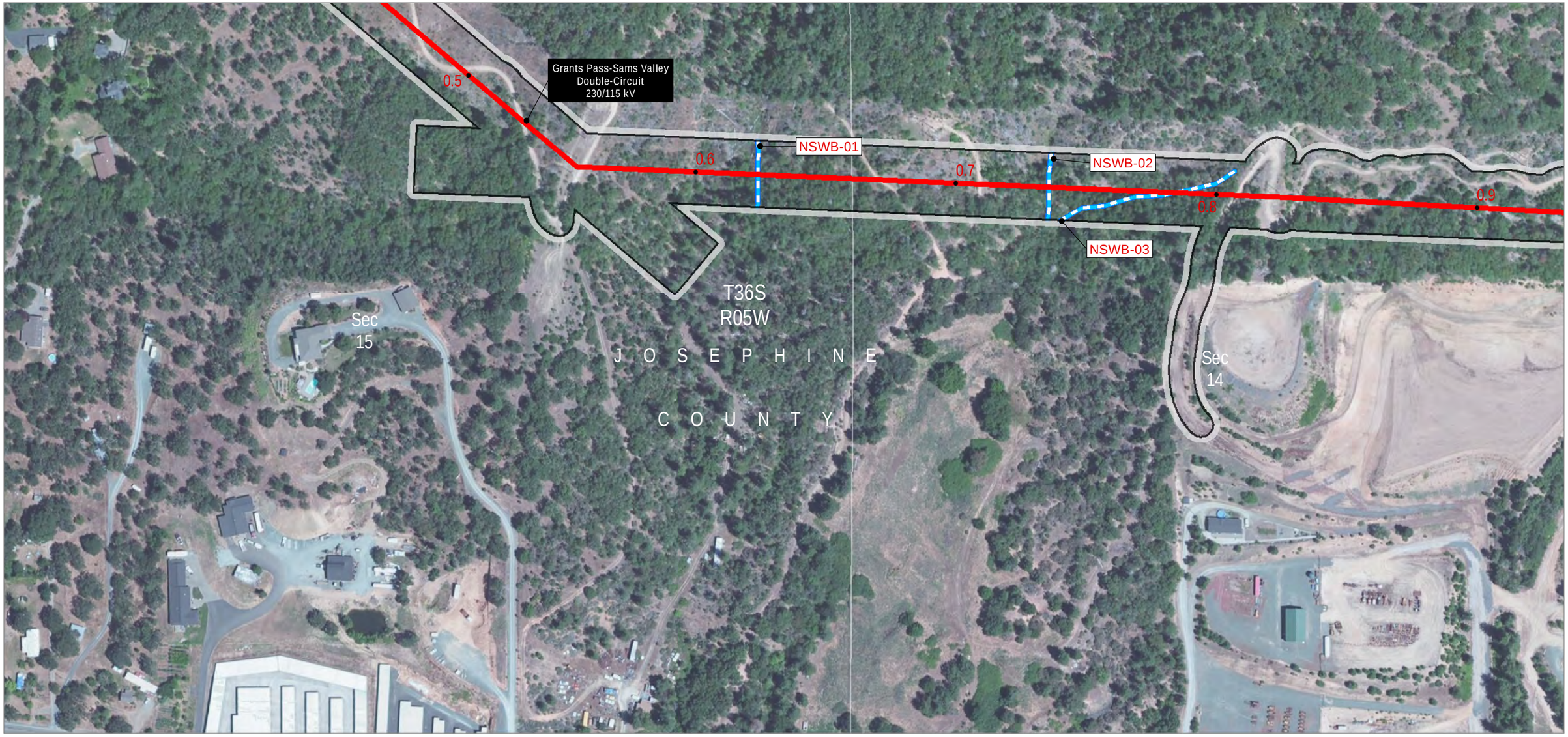
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.1



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Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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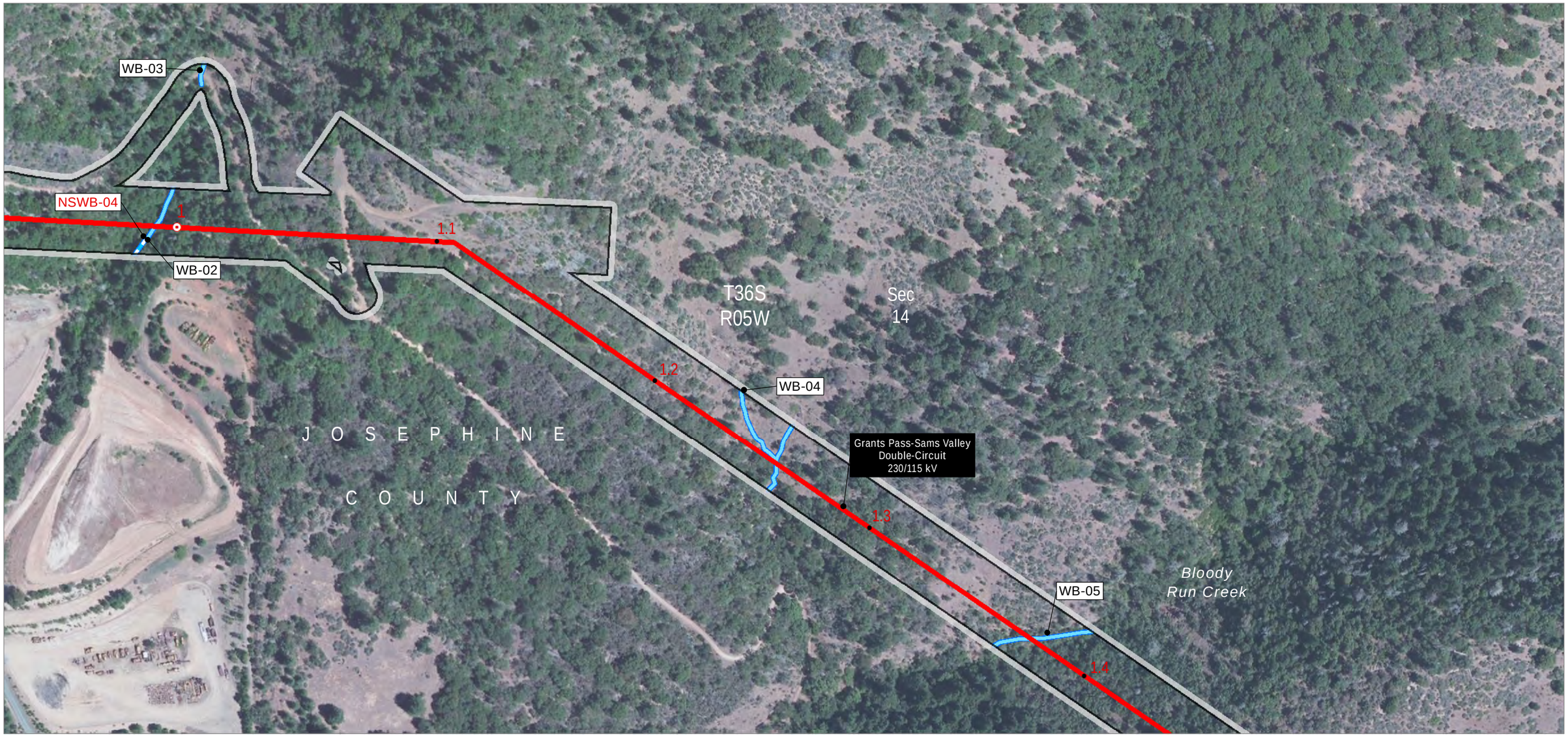
Wetlands and Other Waters of the State

Figure J-2.2



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Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.3

0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Disclaimer: No warranty is made as to the accuracy or completeness of the data shown, and its use is not intended for other than the stated purpose.

F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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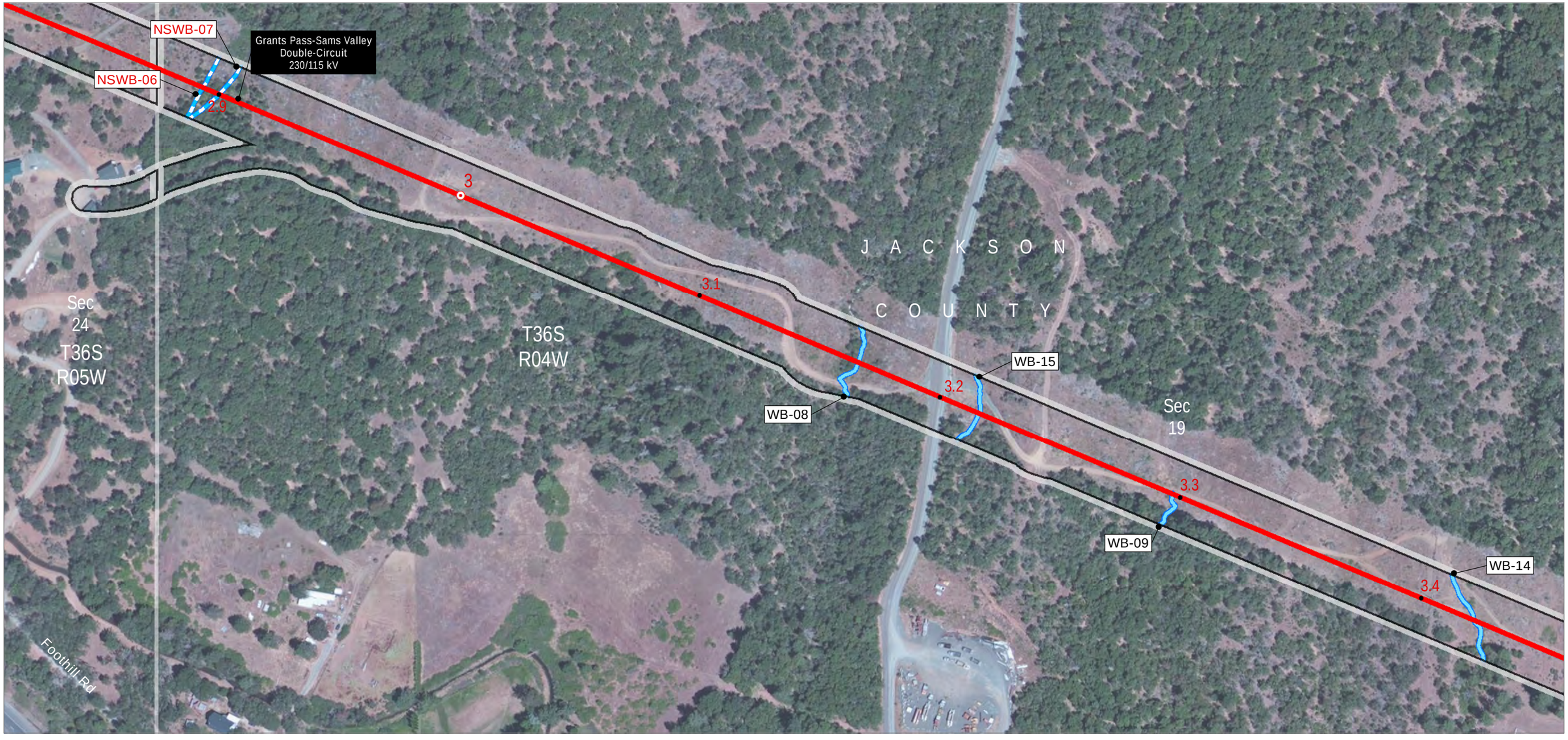
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.4



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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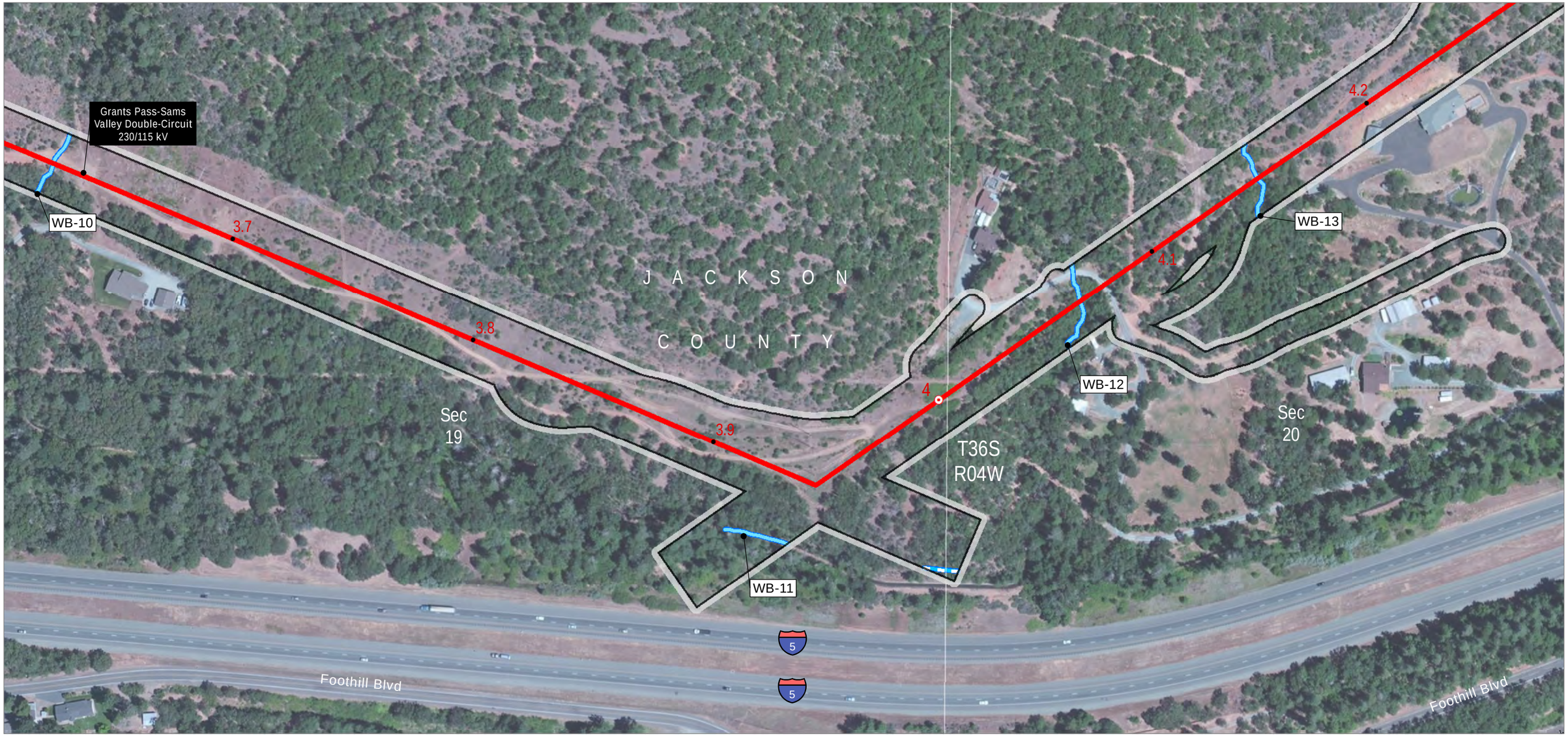
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.5



0 200 Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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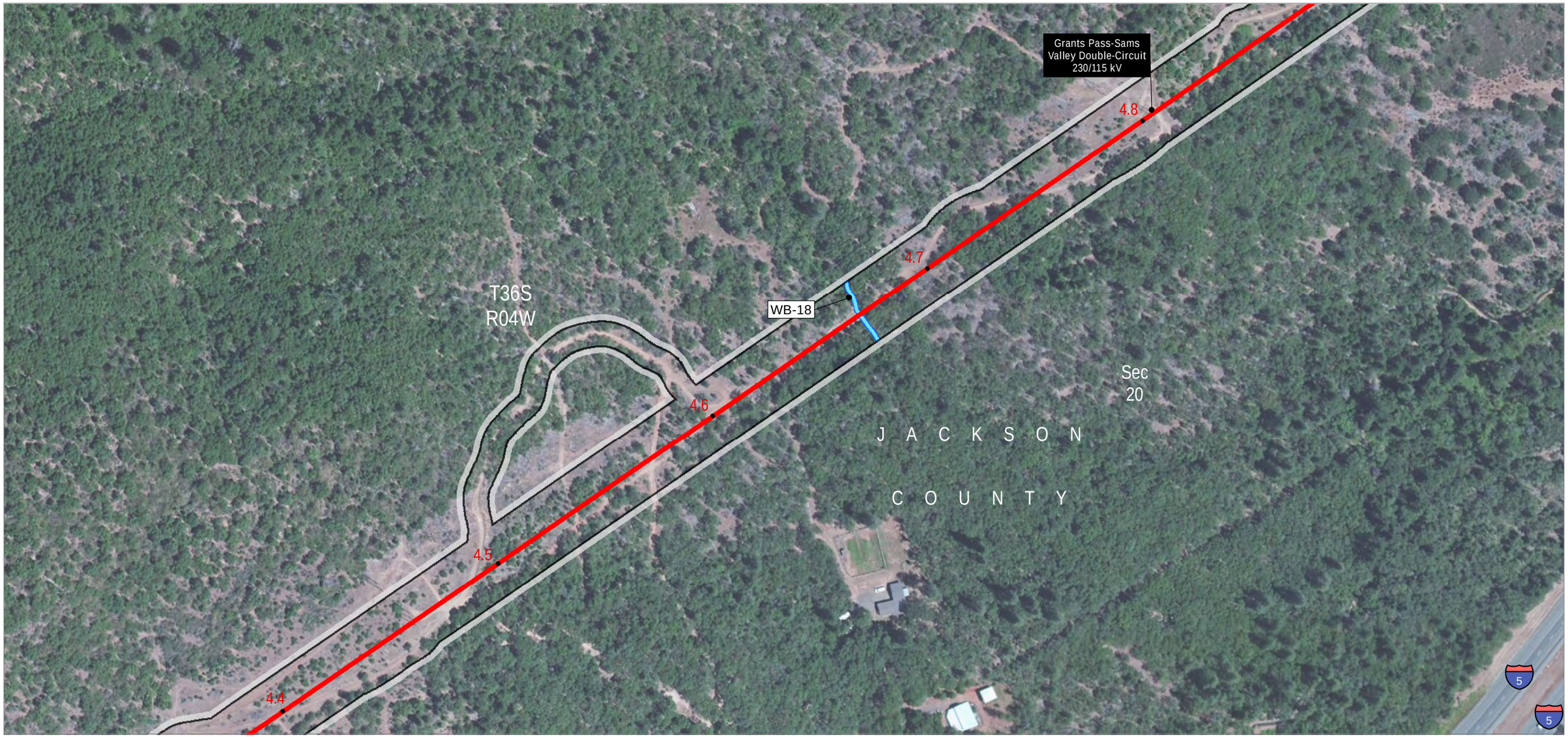
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.6



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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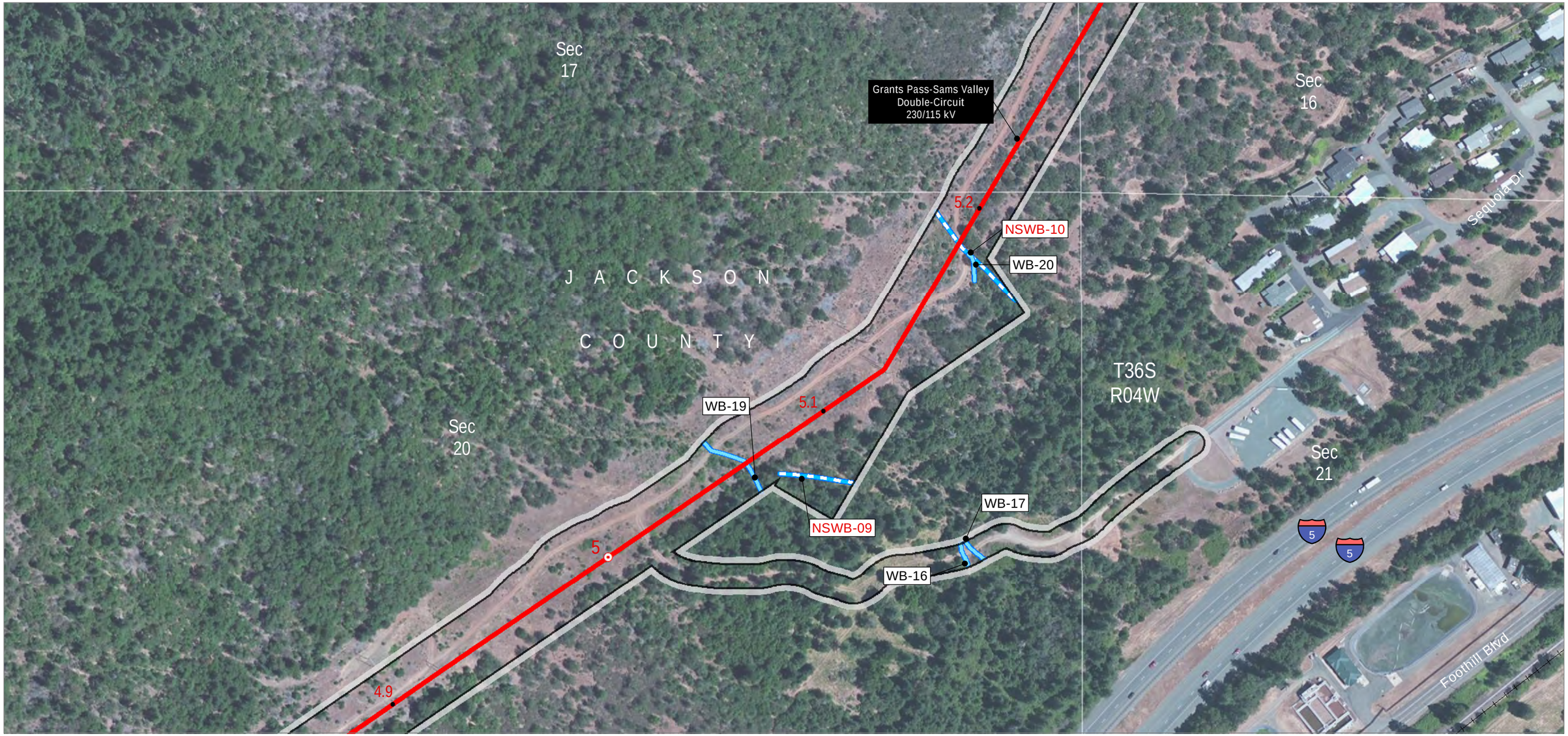
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.7



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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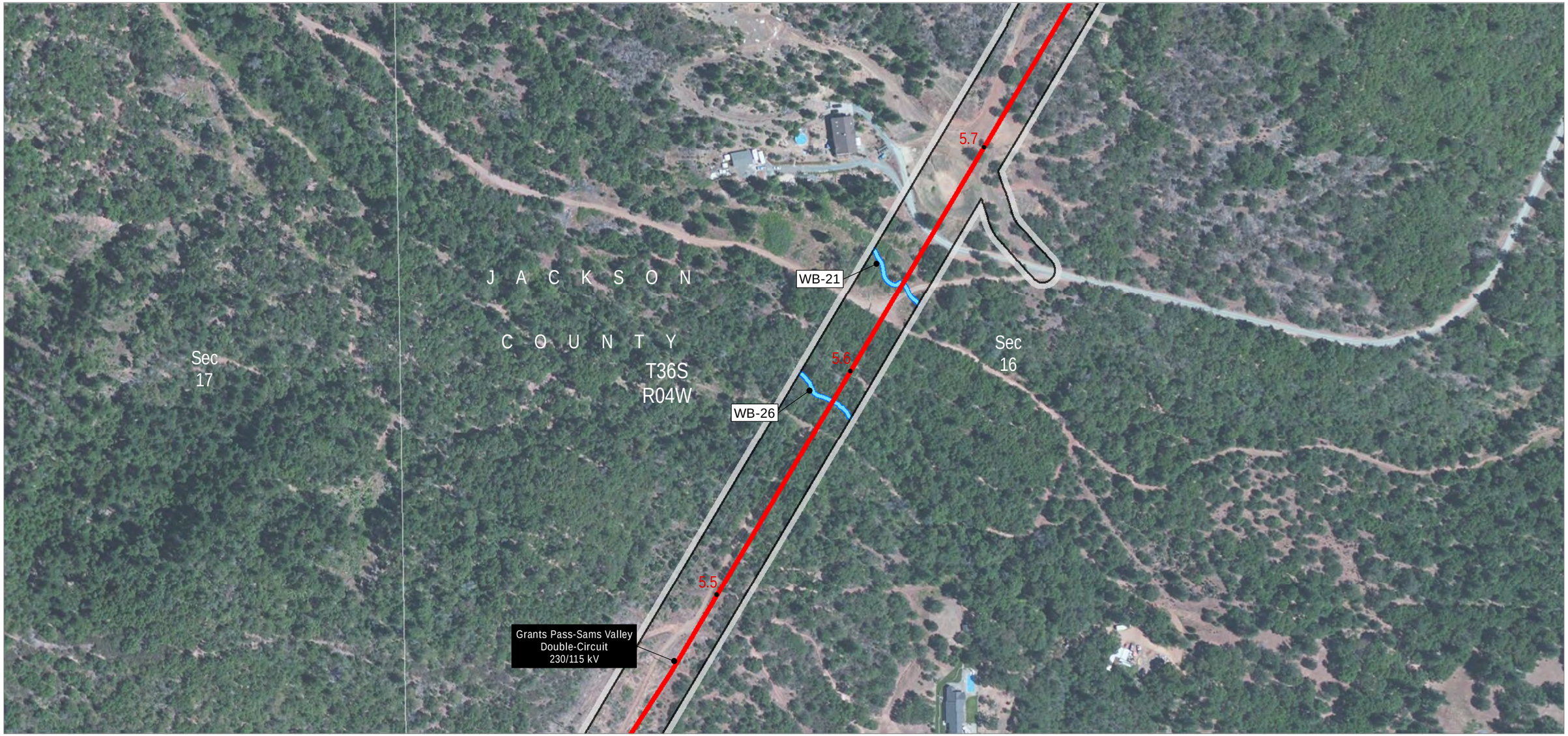
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.8



N

0 200

Feet

Map Area

Salem
OREGON

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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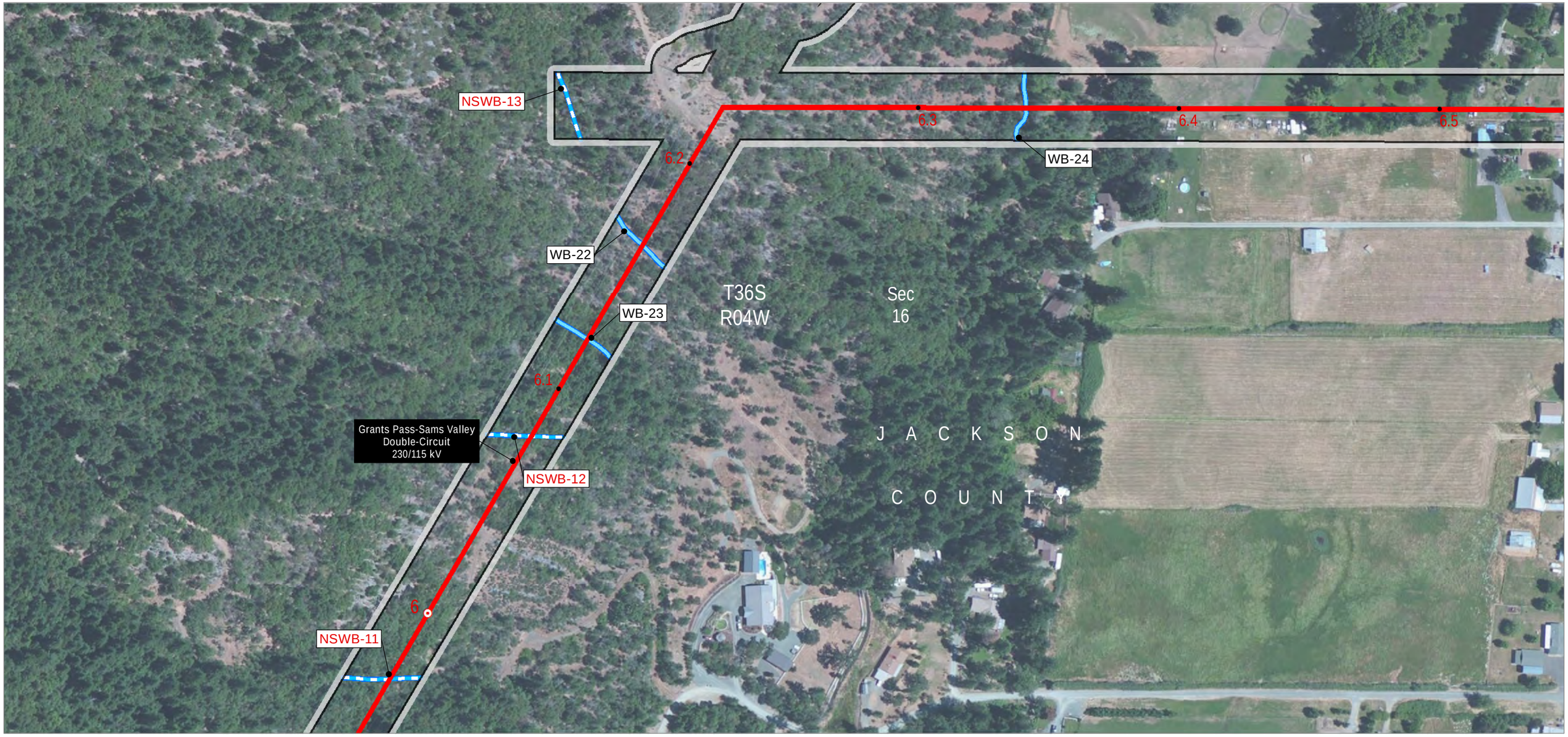
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.9



0 200

Feet

Map Area

Salem

OREGON

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.10

0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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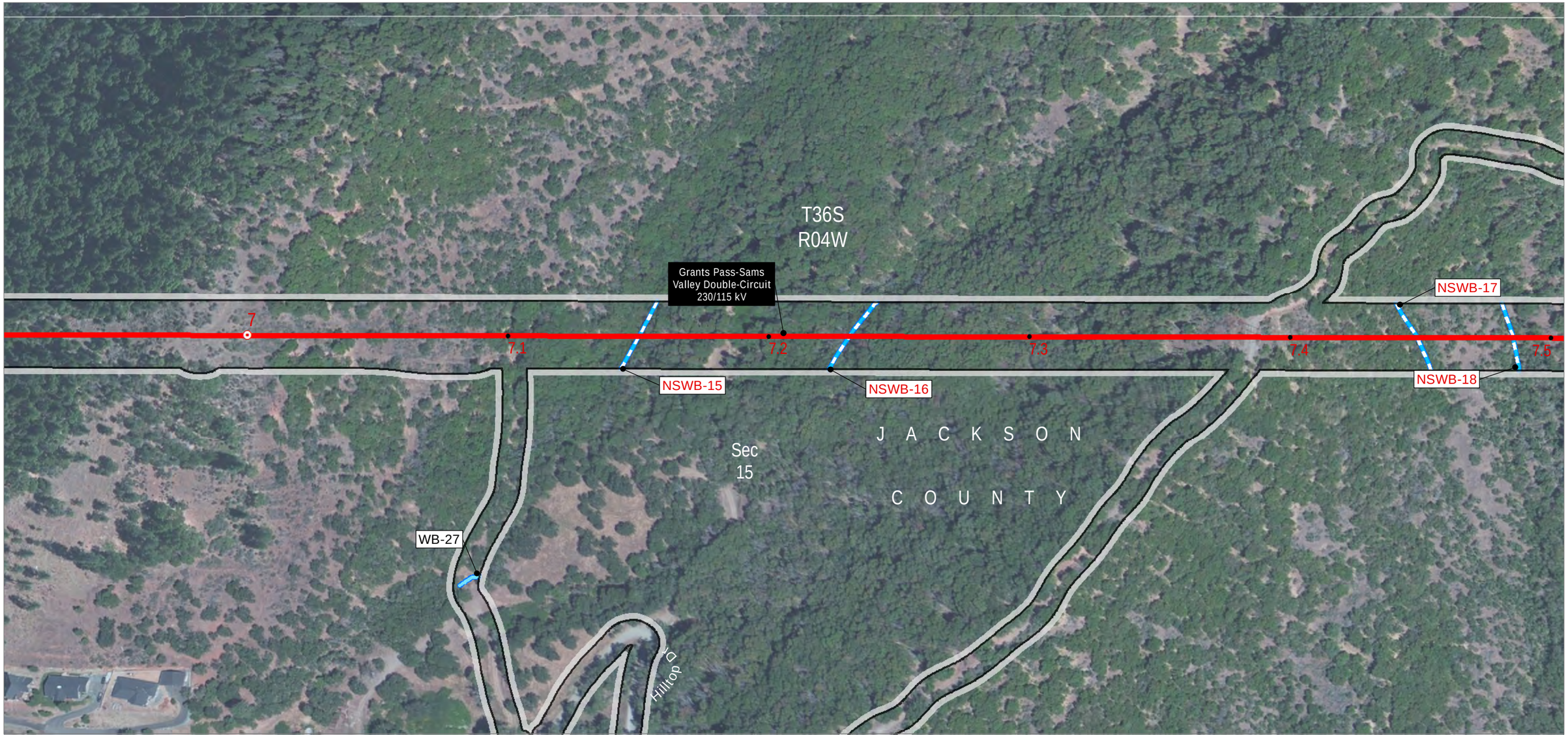
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.11



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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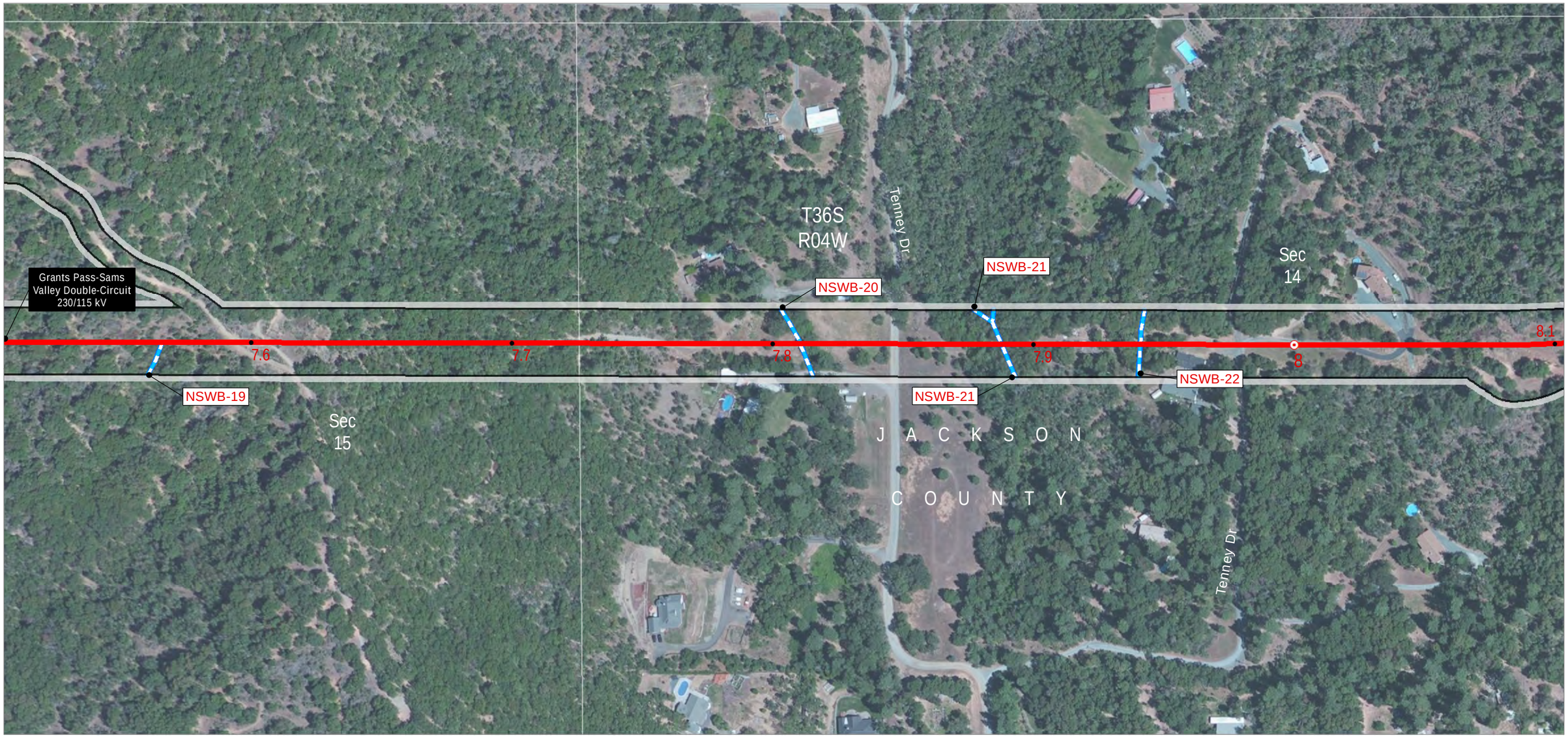
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.12



0 200
Feet

Map Area

Salem
OREGON

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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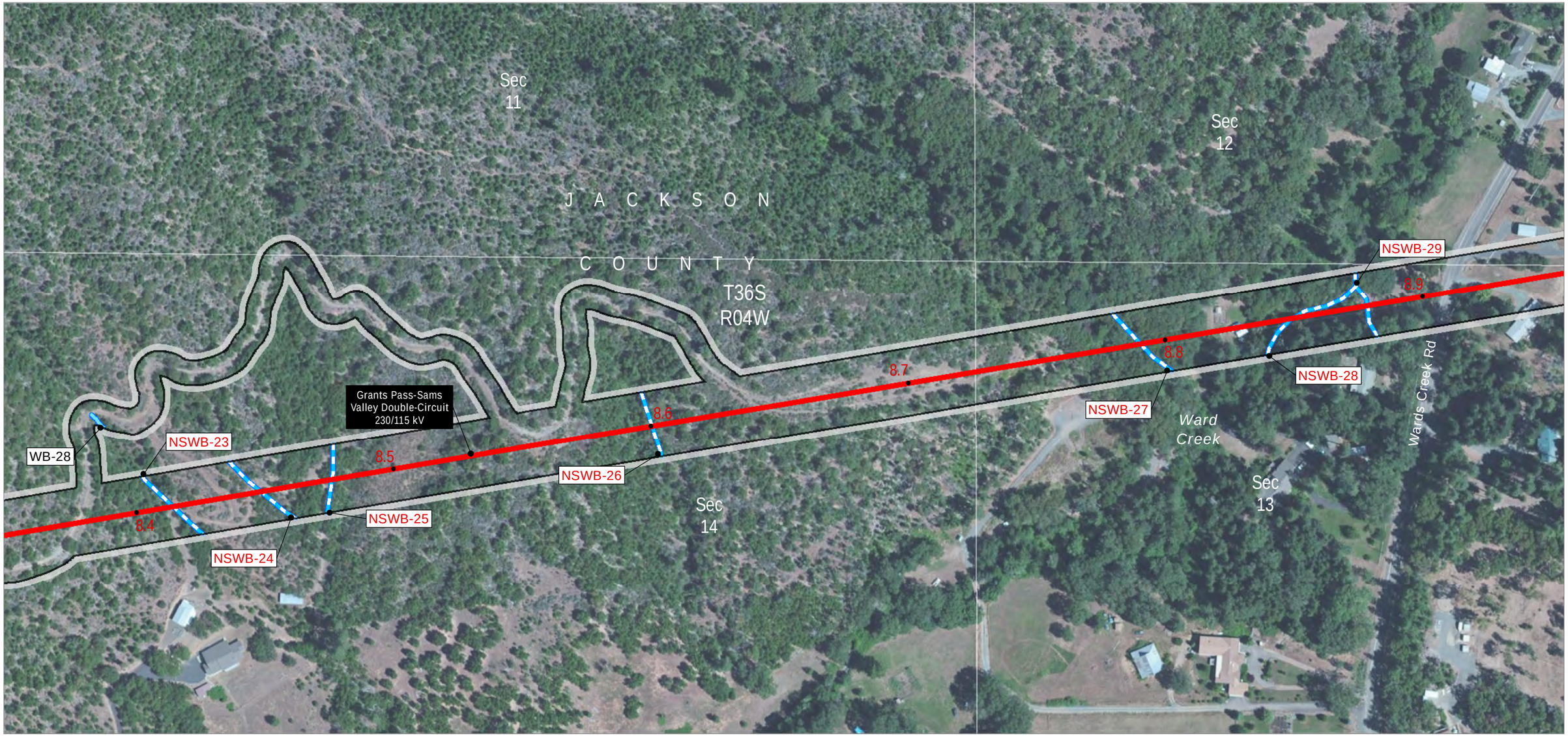
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.13



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.14

0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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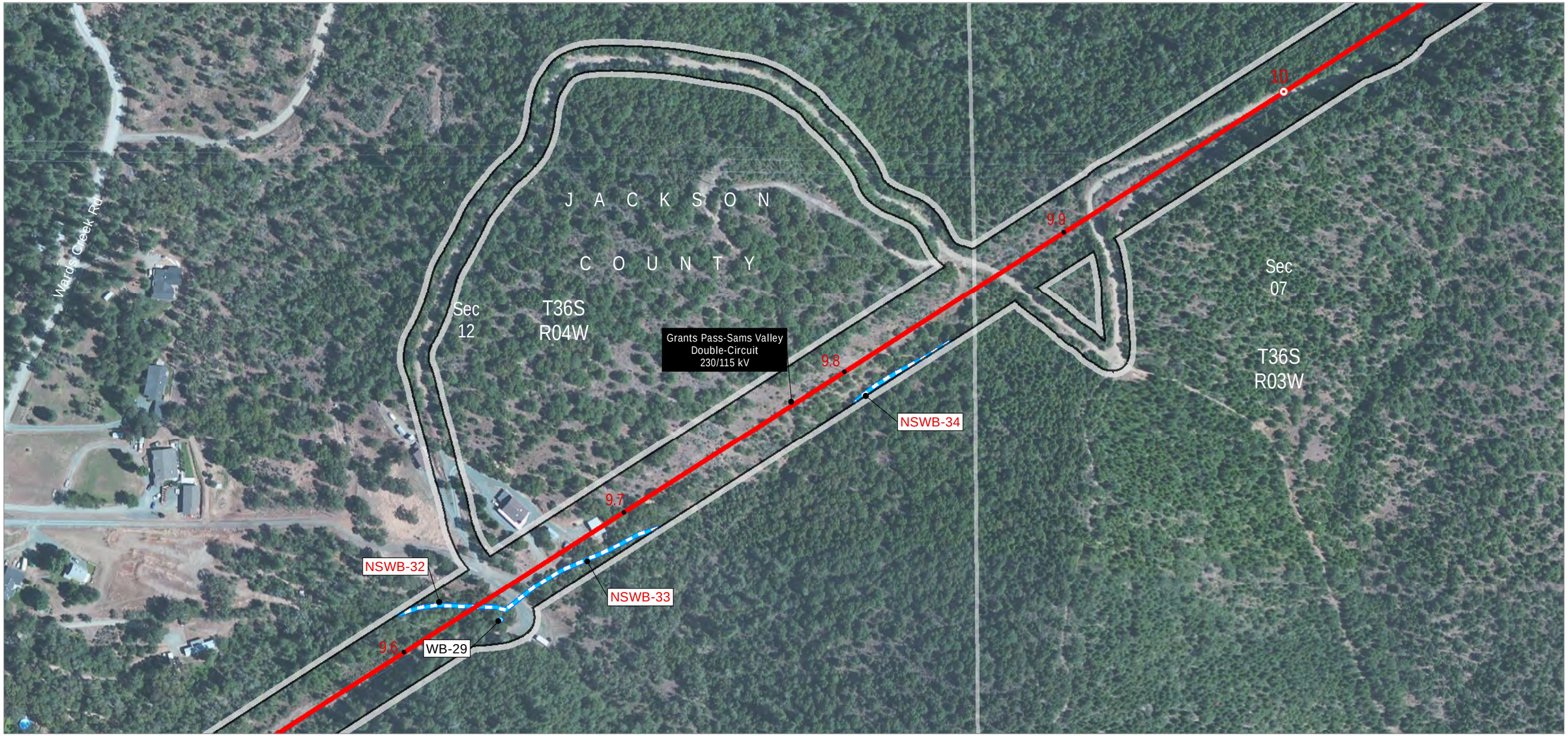
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.15



0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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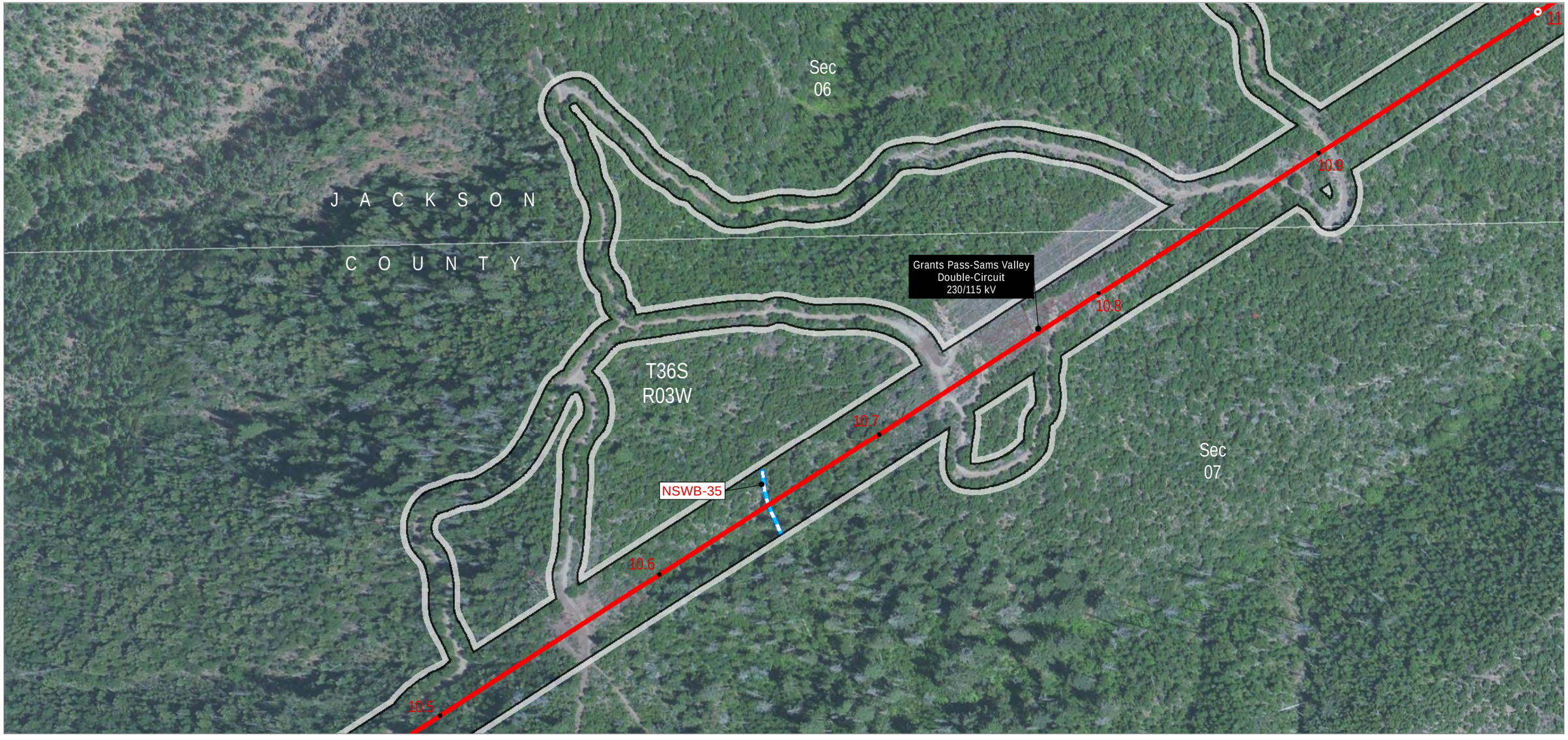
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.16



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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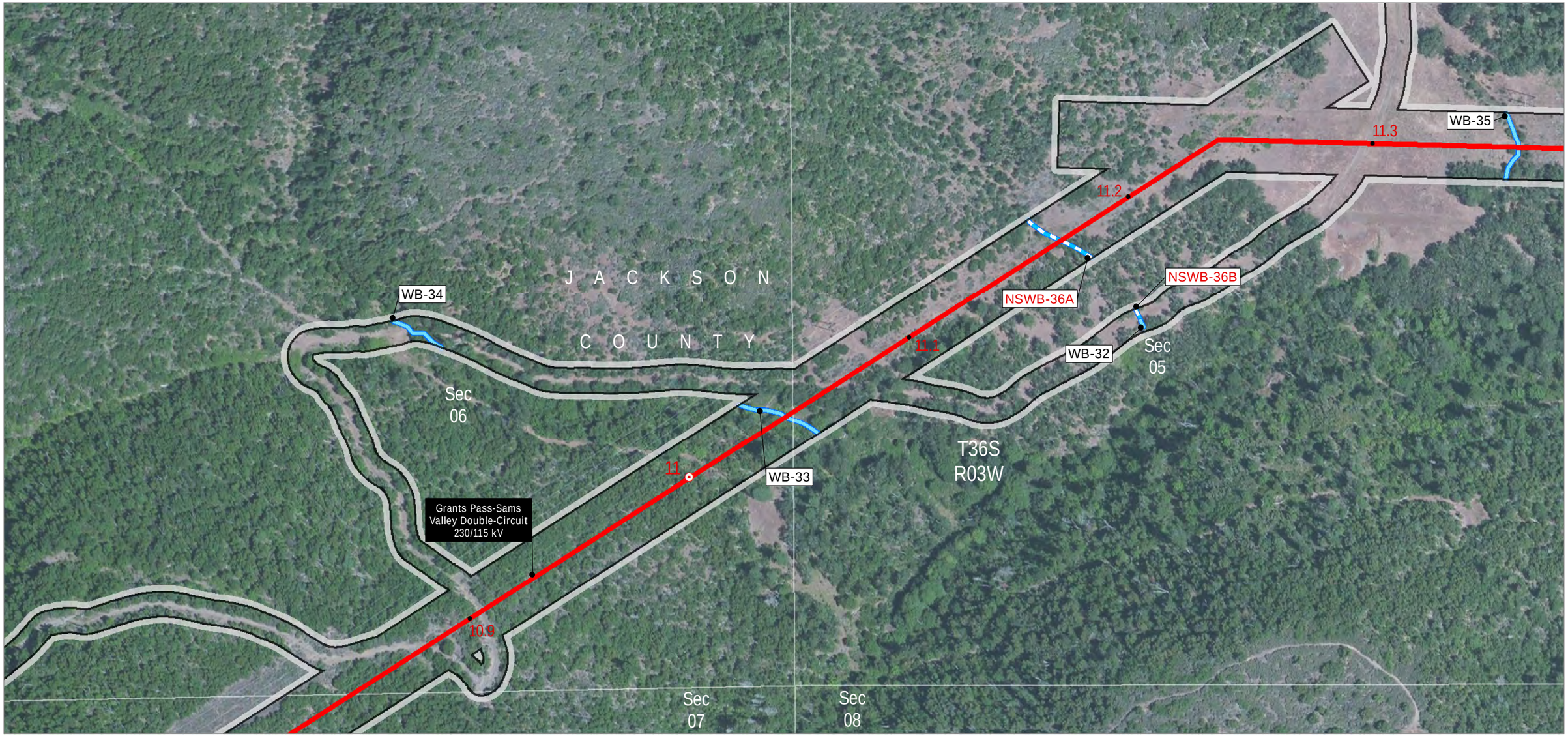
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.17



0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.18

0 200 Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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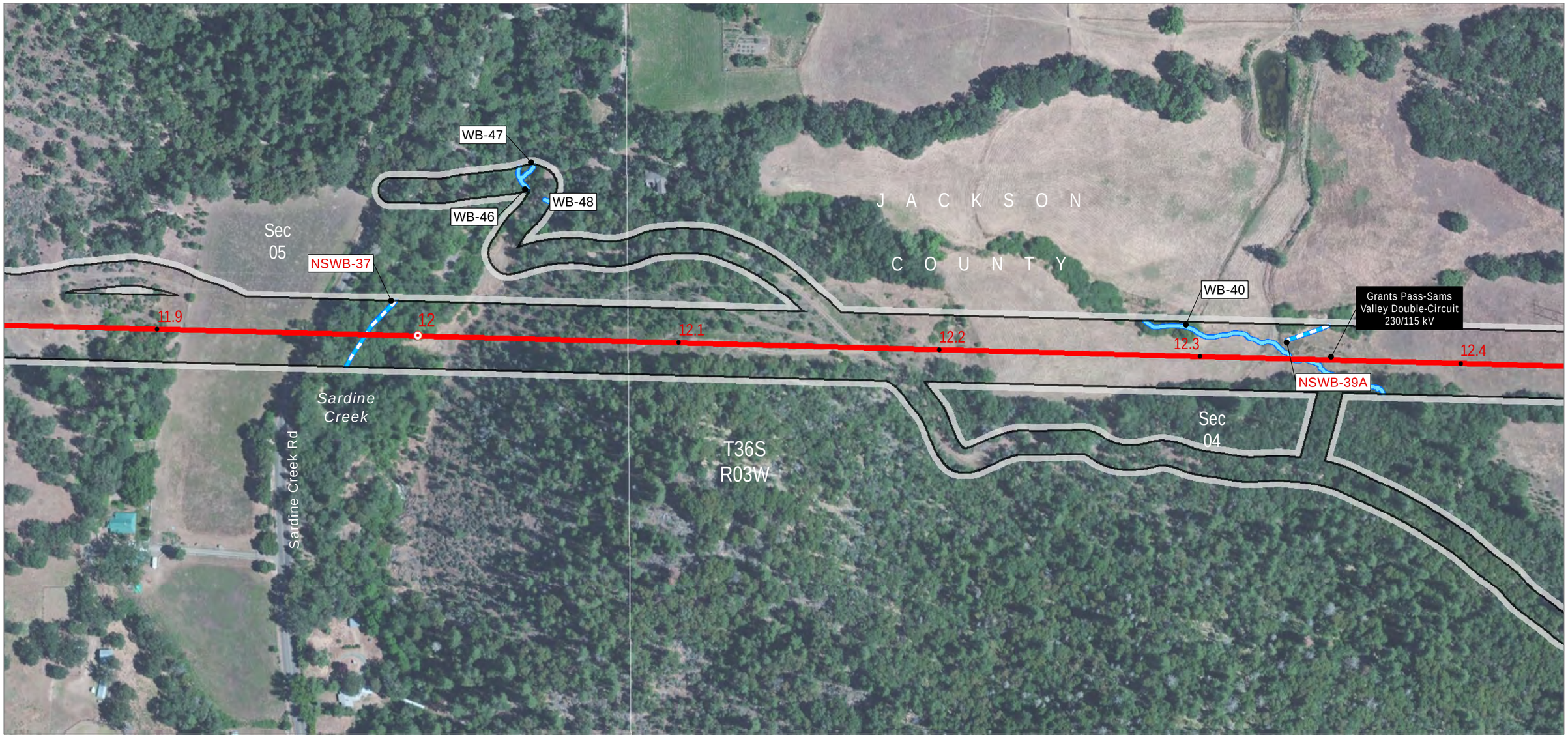
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.19



0 200

Feet

Salem

O R E G O N

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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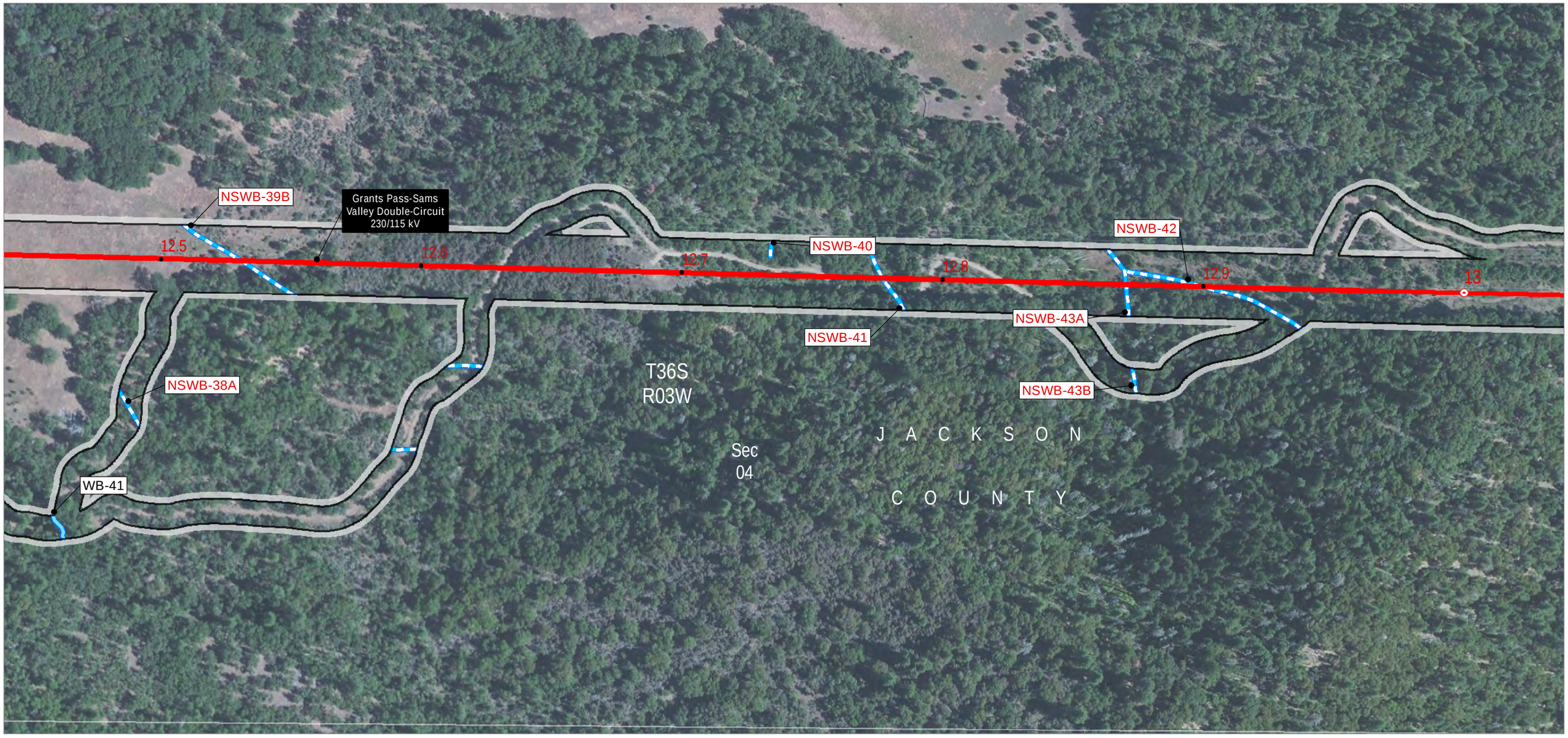
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.20



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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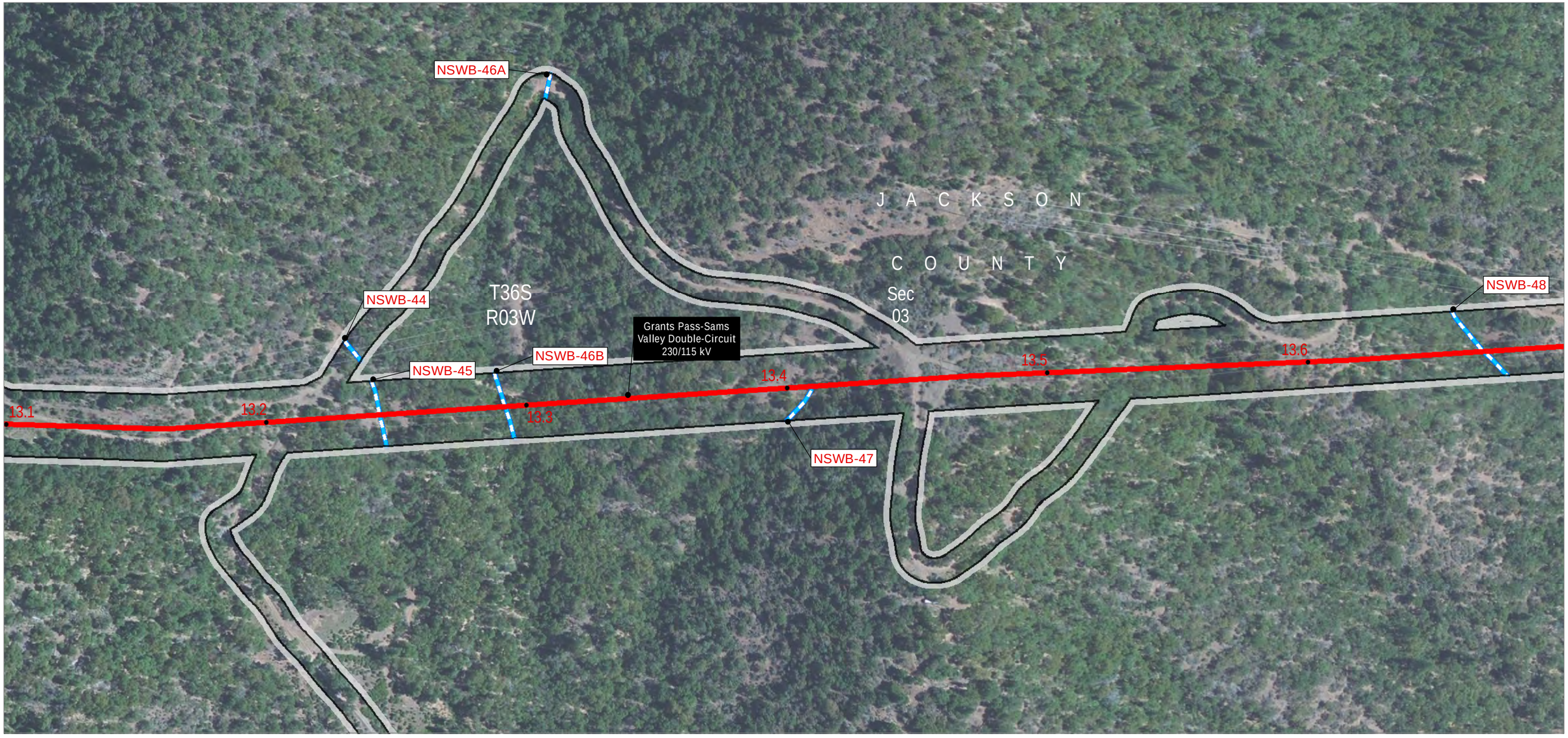
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.21



0 200

Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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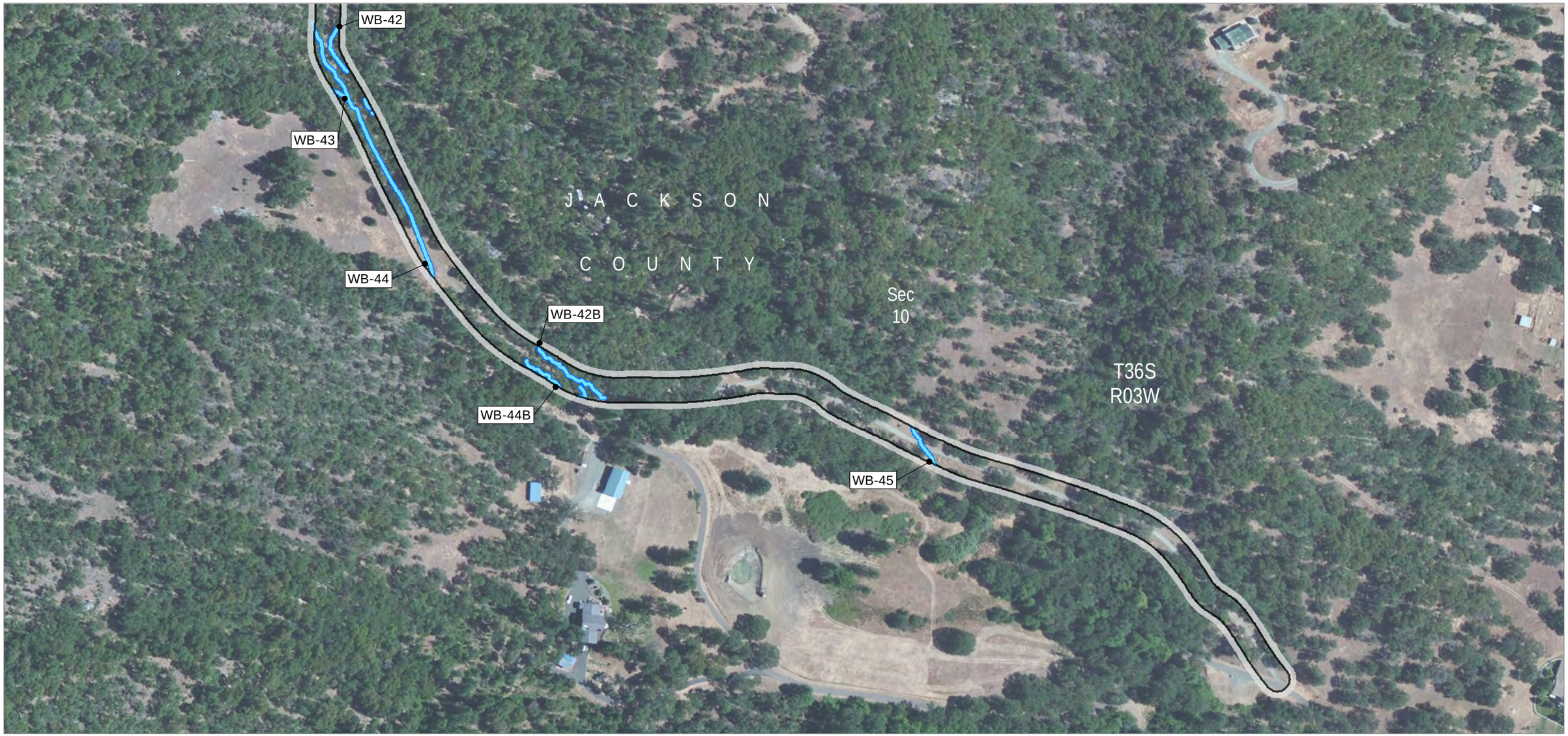
Wetlands and Other Waters of the State

Figure J-2.22



0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Disclaimer: No warranty is made as to the accuracy or completeness of the data shown, and its use is not intended for other than the stated purpose.

F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary
- Substation

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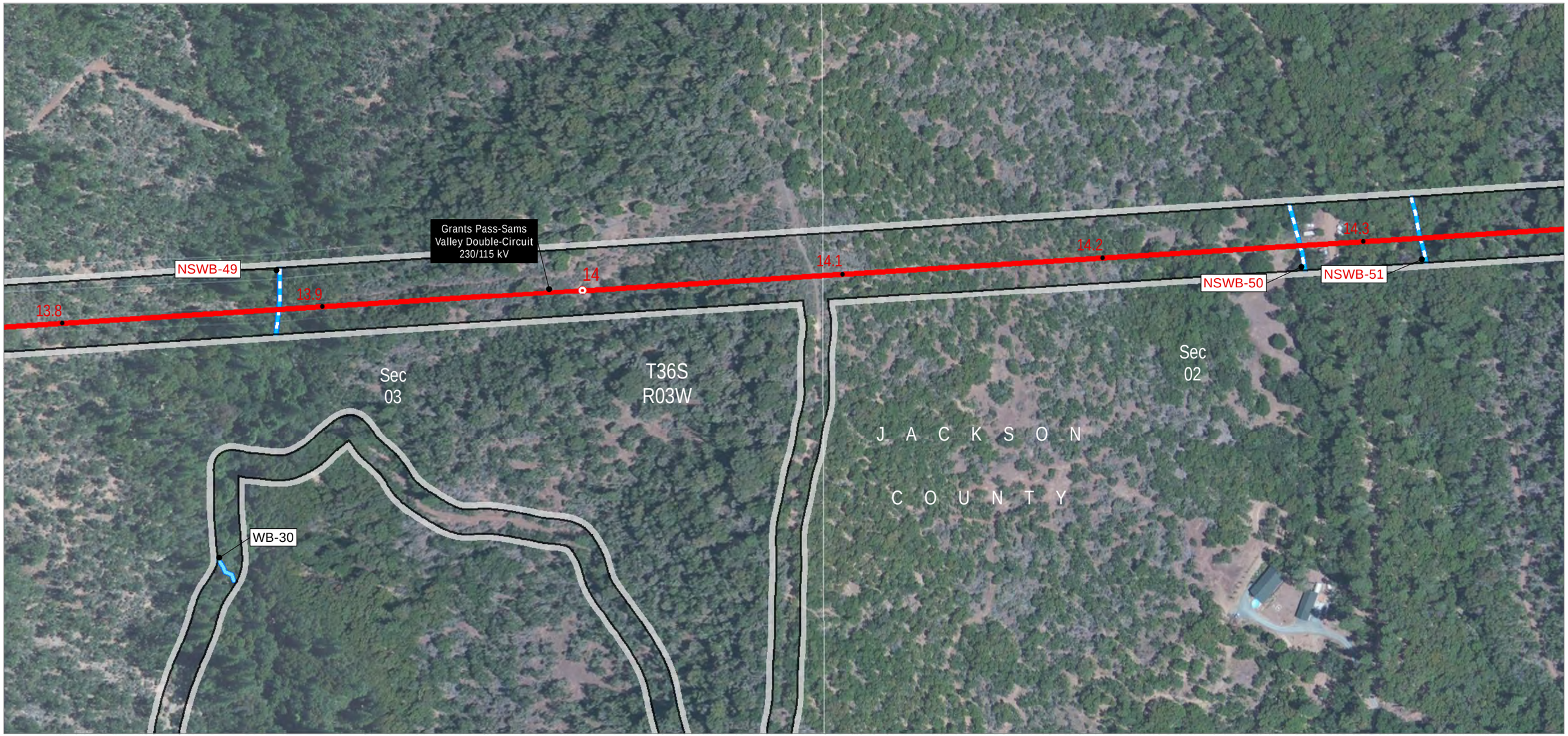
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.23



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Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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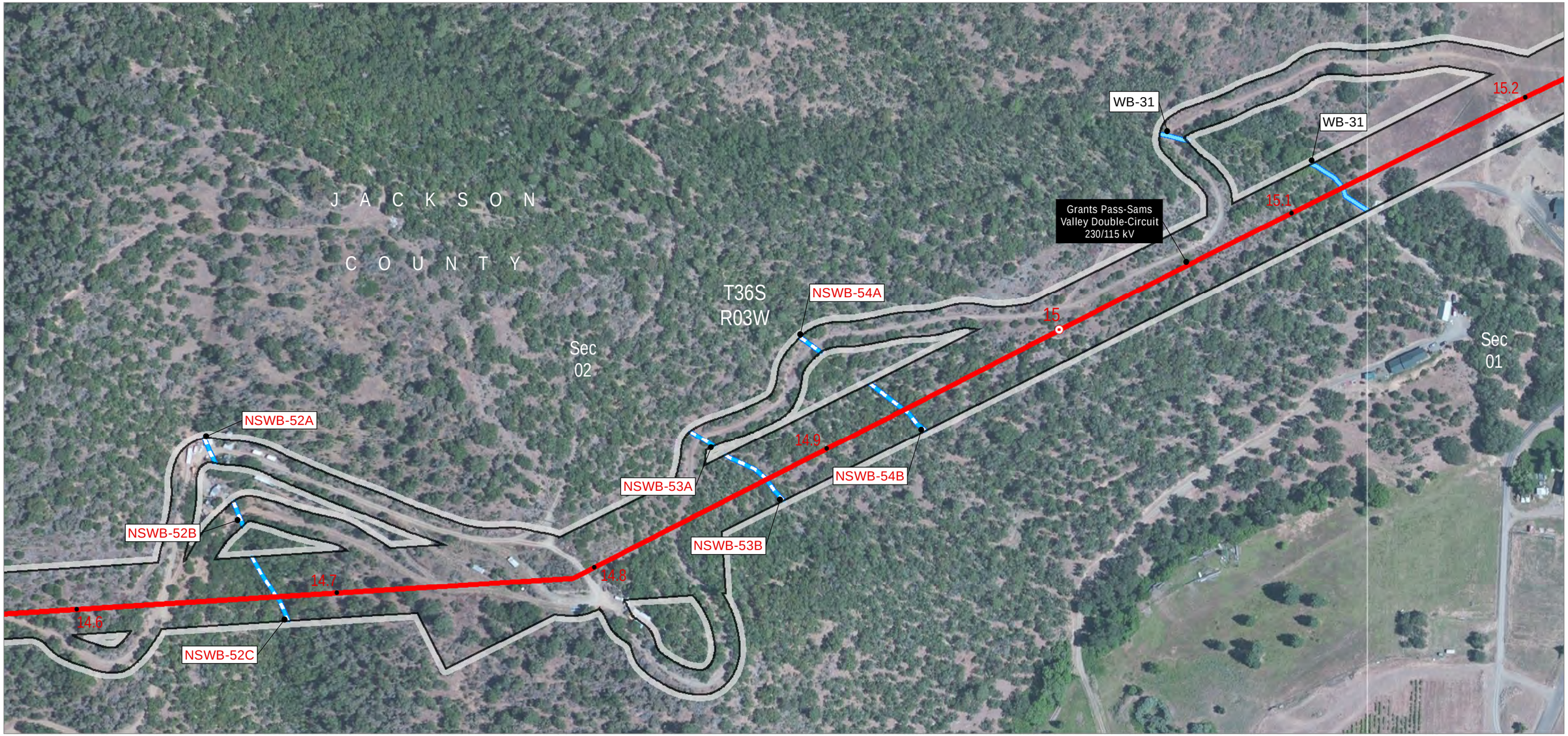
Wetlands and Other Waters of the State

Figure J-2.24



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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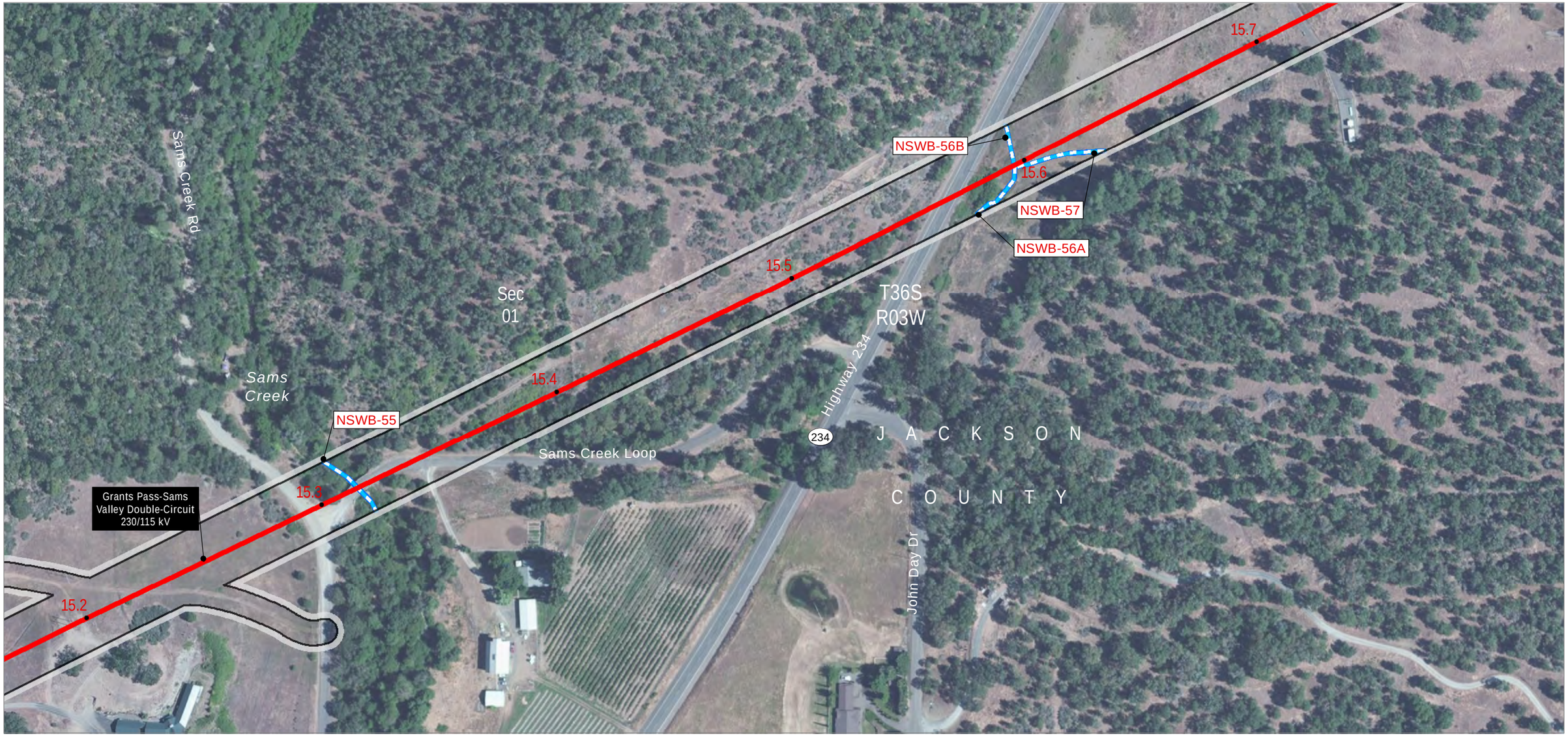
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.25



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0 200

Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.26

0 200
Feet

Salem
O R E G O N

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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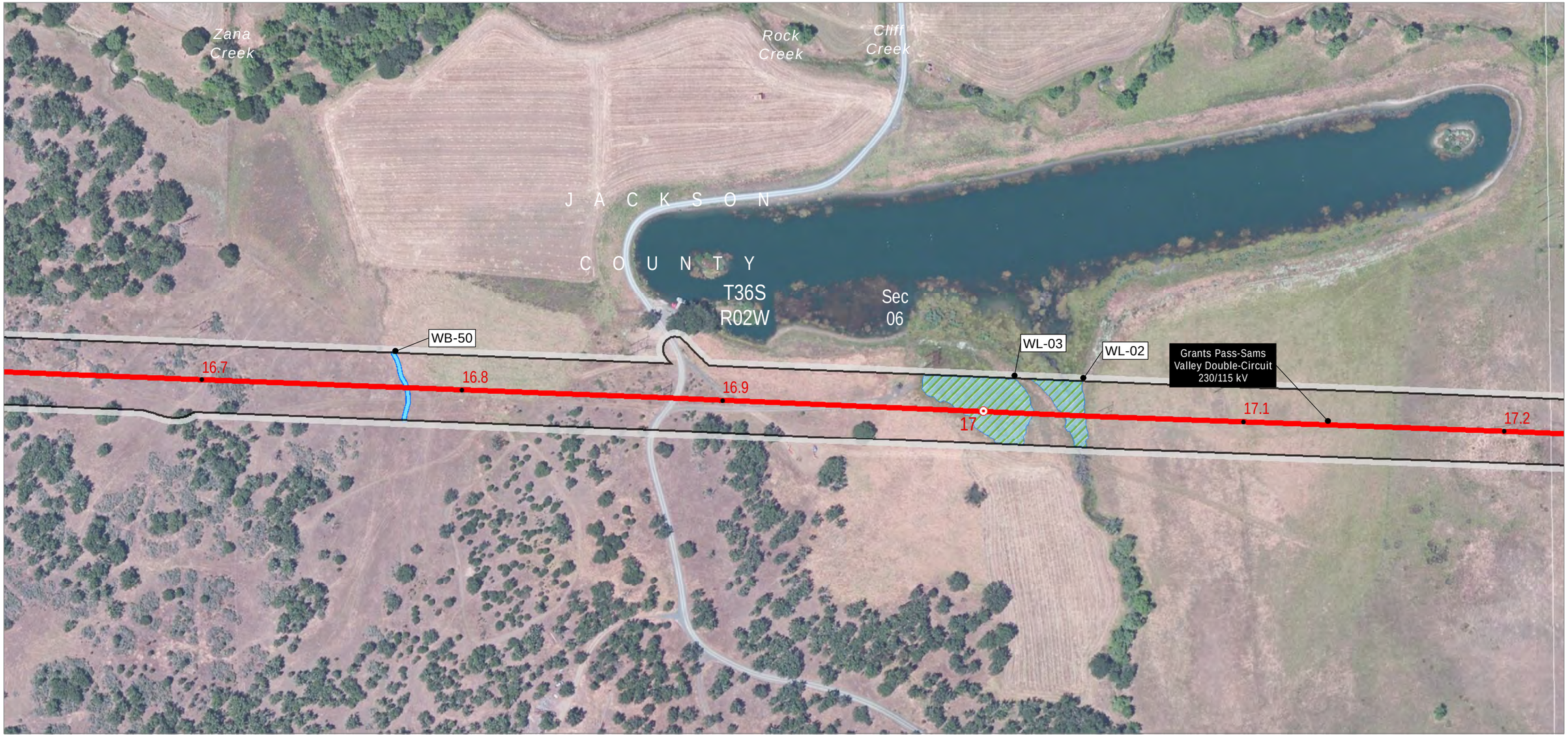
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.27



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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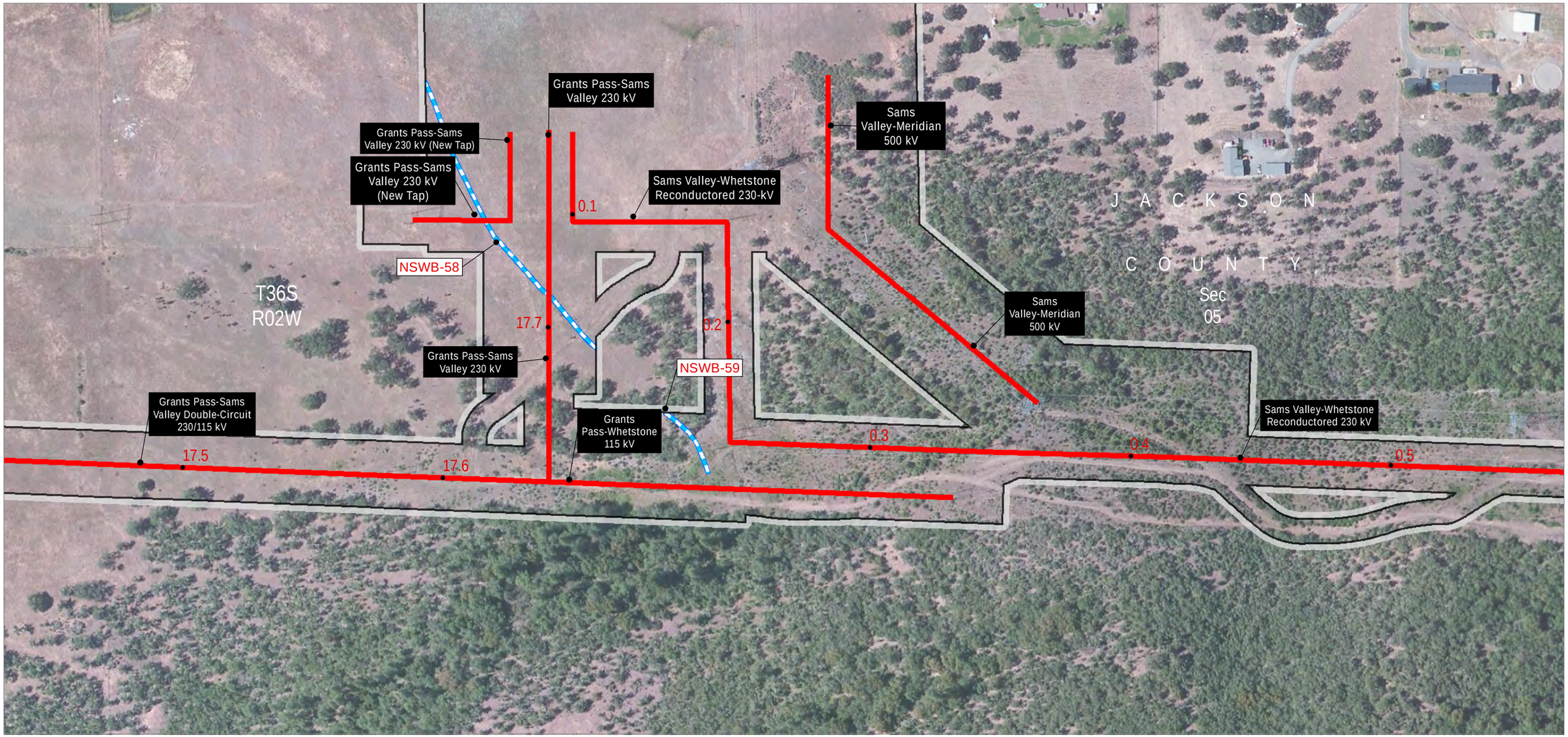
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.28



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.29

0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.30

0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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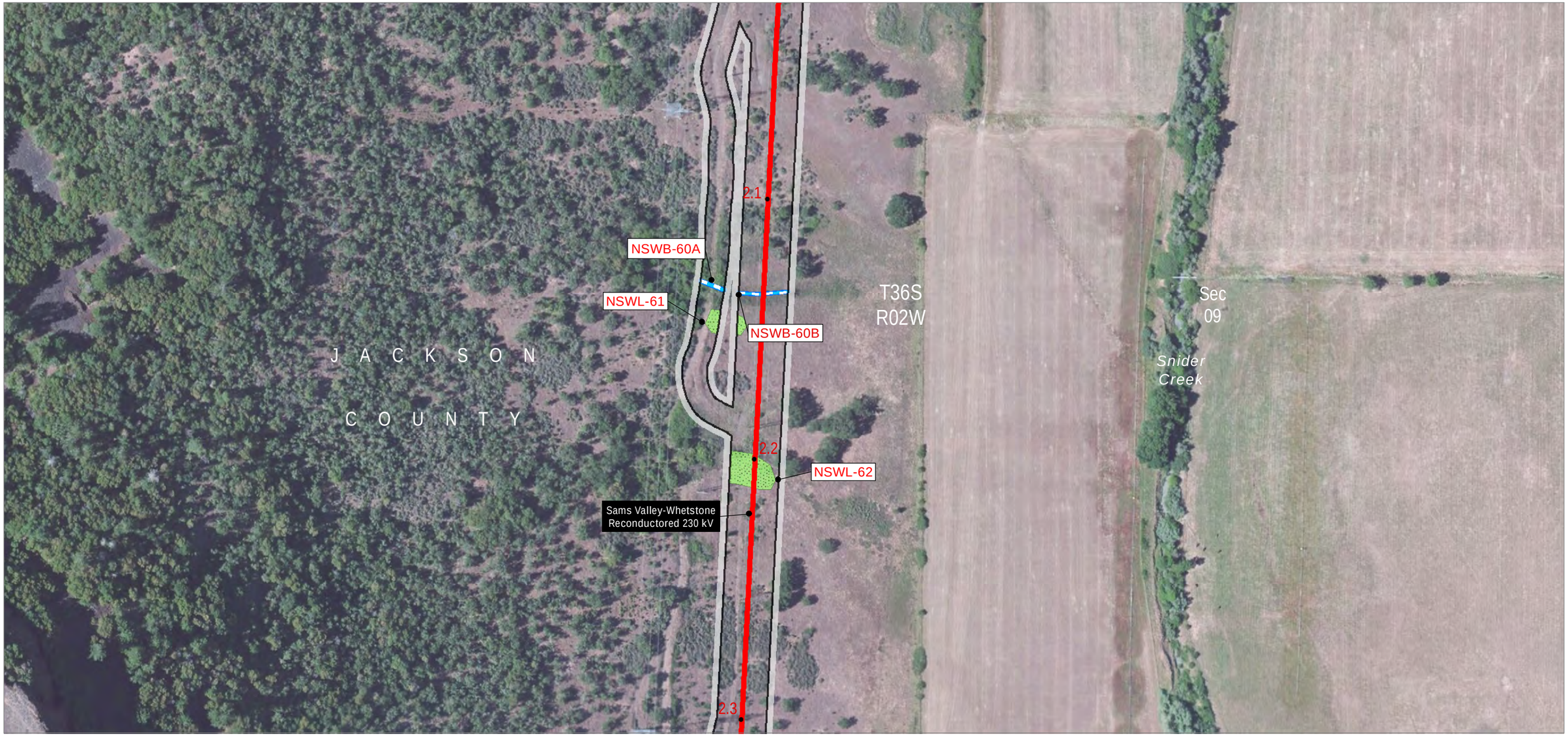
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.31



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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F:\GIS-Projects\UtilServ\Sams Valley\Reports\Exhibit J_Waters and Wetlands\FIG J-2_Delineated Waters and Wetlands.mxd December 2017

Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.32

0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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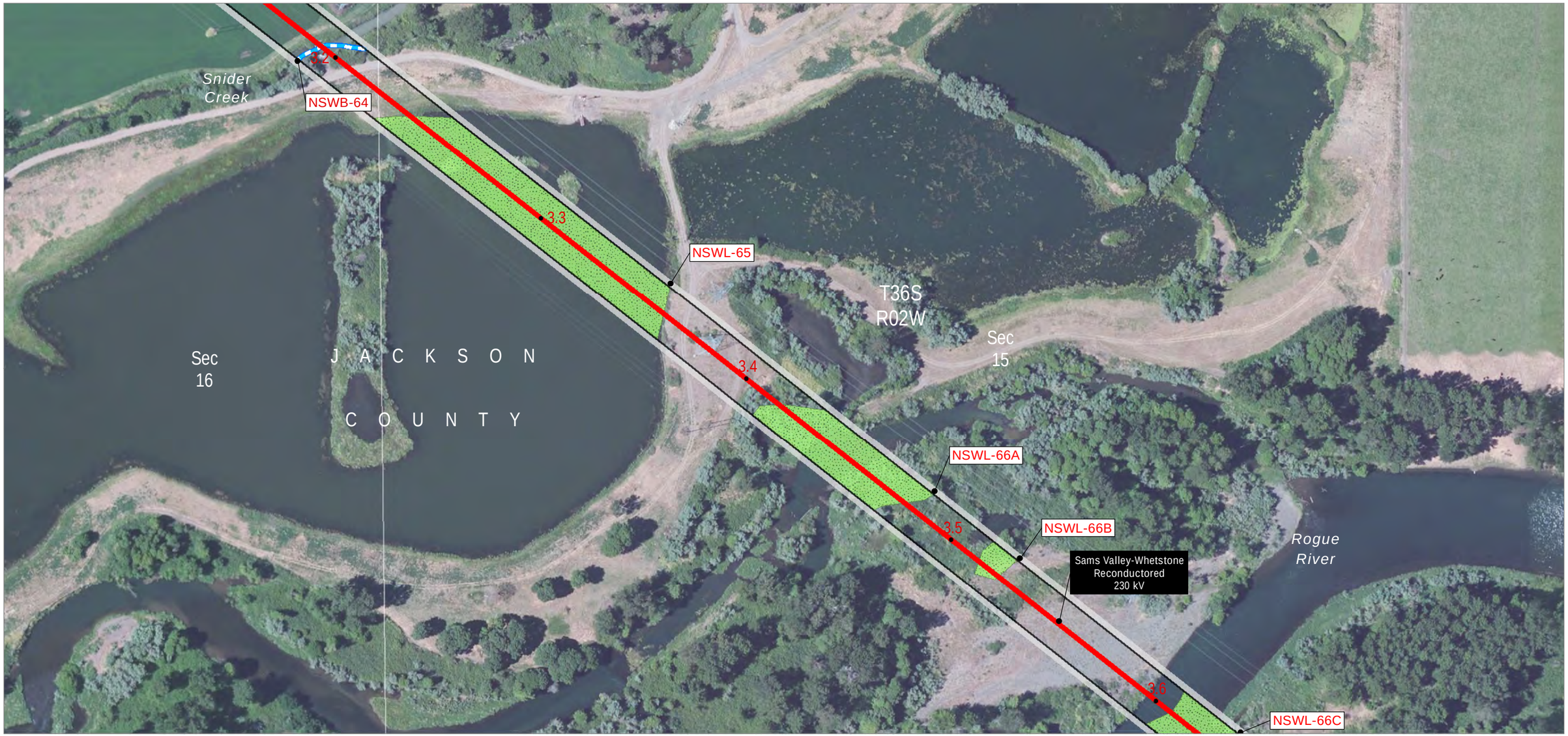
Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.33



0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Tenth-mile

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Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.34

0 200
Feet

Salem
OREGON

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Delineated Water and Wetlands

Streams
- Surveyed
- Not Surveyed

Wetlands
- Surveyed
- Not Surveyed

Other Waters
- Surveyed
- Not Surveyed

Project Features
- Site Boundary

Transmission Centerline(s)
- Transmission Centerline(s)
- Substation

Mileposts
- Mile
- Tenth-mile

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Sams Valley Reinforcement Projects
Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.35

0 200
Feet

Map Area

Source(s): NHD, NWI, PacifiCorp, StreamNet,WEST Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Streams
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Mileposts
- Tenth-mile

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Josephine and Jackson Counties
Amendment #4

Wetlands and Other Waters of the State

Figure J-2.36

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Attachment J-1. Joint Permit Application

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Joint Permit Application

This is a joint application, and must be sent to both agencies, who administer separate permit programs. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

Date Stamp

U.S. Army Corps of Engineers Portland District	Oregon Department of State Lands
Corps Action ID Number	DSL Number

(1) APPLICANT AND LANDOWNER CONTACT INFORMATION

	Applicant	Property Owner (if different)	Authorized Agent (if applicable) ☐ Consultant ☐ Contractor
Contact Name Business Name Mailing Address 1 Mailing Address 2 City, State, Zip	John Aniello Pacific Power 825 NE Multnomah Blvd, 1700 LCT Portland, Oregon 97232	Same as applicant	
Business Phone Cell Phone Fax Email	(503)813-6030 (503)545-9539 (503)813-6596 John.Aniello@pacificorp.com		

(2) PROJECT INFORMATION

A. Provide the project location.

Project Name	Tax Lot #	Latitude & Longitude*
Sam's Valley Reinforcement Project-Substation	600, 700, 701	42.475275, -122.965122
Project Address / Location	**City (nearest)**	**County**
Located at approx. intersection of Sam's Valley Hwy 234 and Tresham Ln	Central Point	Jackson County

Township	Range	Section	Quarter/Quarter
36S	2W	5	NW1/4

Brief Directions to the Site
From I-5, take exit 40 towards Hwy 234. Follow Hwy 234 until you reach intersection with Tresham Ln.

B. What types of waterbodies or wetlands are present in your project area? (Check all that apply.)

☒ River / Stream(Ditch)	☒ Non-Tidal Wetland	☐ Lake / Reservoir / Pond
☐ Estuary or Tidal Wetland	☐ Other	☐ Pacific Ocean

Waterbody or Wetland Name**	River Mile	6th Field HUC Name	6th Field HUC (12 digits)
Wetlands A, B, C, Ditch 1	n/a	Sams Creek-Rogue River	171003080203

C. Indicate the project category. (Check all that apply.)

☐ Commercial Development	☒ Industrial Development	☐ Residential Development
☐ Institutional Development	☐ Agricultural	☐ Recreational
☐ Transportation	☐ Restoration	☐ Bank Stabilization
☐ Dredging	☐ Utility lines	☐ Survey or Sampling
☐ In- or Over-Water Structure	☐ Maintenance	☐ Other:

* In decimal format (e.g., 44.9399, -123.0283)
** If there is no official name for the wetland or waterway, create a unique name (such as "Wetland 1" or "Tributary A").

(3) PROJECT PURPOSE AND NEED

Provide a statement of the purpose and need for the overall project.

The purpose of the Project is to construct, operate, and maintain a new 500 kV/230 kV substation to provide system reliability to reduce the possibility of large scale load dropping in Medford, Grants Pass, and Crescent City in the event of an outage. The new substation will facilitate the development of the new transmission line, help meet new power demands due to regional growth and act as a redundant path for power in the event another local transmission line is damaged or experiences disruption of service. It will improve and strengthen the power grid for the entire region, including the more than 88,000 Jackson County and 41,000 Josephine County customers of Pacific Power.

Current modeling indicates that the current system is at risk of unacceptable failure based on a lack of redundant paths of power in the region. System modeling indicates that a new 500 kV/230 kV substation, that interconnects a new 230 kV line to the existing Dixonville-Meridian 500 kV line, is necessary to increase capacity and improve reliability in the Southern Oregon region as part of the North American Electric Reliability Corporation (NERC) reliability standards and the Western Electricity Coordinating Council (WECC) system operating standards. Additional details concerning the purpose and need for the project are included in Section 2.2 of the Attached Alternatives Analysis (Attachment F).

(4) DESCRIPTION OF RESOURCES IN PROJECT AREA

A. Describe the existing physical and biological characteristics of each wetland or waterway. Reference the wetland and waters delineation report if one is available. Include the list of items provided in the instructions.

A total of three wetlands, collectively covering 4.78 acres, and one jurisdictional (DSL) roadside ditch were delineated at the project site and are described in detail in the attached wetland and waters delineation report (Attachment A). All three wetlands are freshwater, palustrine emergent (PEM) with vegetation dominated by meadow foxtail (FAC). The wetlands are depressional or depressional/slope and are fed by surface runoff and/or a high groundwater table. Although primary indicators for hydrology were not observed at any of the wetlands, wetland hydrology is assumed to be present during the early growing season. Wetlands A and C are relatively small (0.01 acres and 0.09 acres respectively) wetlands that are entirely contained within the project site, whereas Wetland B is larger (4.68 acres) and extends outside the project area. Wetland B appears to have a subsurface connection to an unnamed, ephemeral tributary to Rock Creek outside of the study area. However, no evidence of a drainage or stream is evident in the project area. A functional assessment (ORWAP) of each wetland are included in the attached delineation report (Attachment A).

The roadside ditch (Ditch 1) follows the southside of Highway 234 and Tresham Lane through a series of culverts. The ditch is approximately 2-4 feet wide, is dominated by herbaceous vegetation (primarily upland grasses), dries up seasonally (ephemeral) and drains westward to Rock Creek. The ditch is not likely to support fish populations due to a lack of water during most of the year and the absence of approriate substrates (lots of cobbles and boulders) and foodsources (no macorinvertebrates and abundance of roadside weeds). In addition, high flows have eroded the ditch, resulting in perched culverts (two, 18" concrete culverts) which could inhibit fish passage. A streamflow duration field assessment is included in the attached delineation report (Attachment A).

There are no vernal pools, bogs, fens, mature forested wetlands, seasonal mudlftas or native wet prairies that occur within the project area. Vernal pools are known to occur on Lower Table Rock, approximately 1 mile southeast of the proposed substation.

B. Describe the existing navigation, fishing and recreational use of the waterway or wetland.

Neither the wetlands nor ditches are being used for navigation, fishing or recreational purposes. The wetlands are located on privately owned land that is gated off from the public and, with the exception of the small retainment pond located within Wetland B, the wetlands do not typically contain standing water that would support fishing or navigation uses. The jurisdictional roadside ditch is typically dry, except during rainfall events, and does not support fish populations.

(5) PROJECT SPECIFIC CRITERIA AND ALTERNATIVES ANALYSIS

Describe project-specific criteria necessary to achieve the project purpose. Describe alternative sites and project designs that were considered to avoid or minimize impacts to the waterway or wetland.

Section 3.2 of the attached Alternatives Analysis (Attachment F) describes project-specific criteria necessary to achieve the project purpose as well as alternative sites and project designs that were considered to avoid or minimize impacts to wetlands. The alternatives analysis considered a range of sites, some of which resulted in fewer aquatic impacts when compared to the proposed site. Each alternative was evaluated and compared to the proposed site and reasons for dismissing each alternative are provided in the analysis report.

In addition, the following design considerations were made in an effort to minimize wetland impacts at the site:

-The substation's proposed access road was originally designed to be further away in distance from the substation boundary, resulting in additional impacts to Wetlands B and C. The access road was subsequently modifed, by bringing it closer into the substation to minimize the overall project's footprint and avoid unecessary wetland impacts.

-The proposed substation has been designed to fit into the smallest footprint possible and there are no additional design-changes that would result in a smaller substation footprint.

(6) PROJECT DESCRIPTION

A. Briefly summarize the overall project including work in areas both in and outside of waters or wetlands.

The project involves construction, operation and maintenance of a new 500 kV/230 kV substation, located on private land at the intersection of a new 230 kV line and the existing Dixonville-Meridian 500 kV transmission line (Figure 2). The substation would occupy approximately 20 acres and consist of a fenced and secured graveled yard containing transformers and switches. Existing vegetation on-site would be cleared and the site would be filled, graded, and insulating rock would be installed. Appropriate erosion and sediment control measures and best management practices will be implemented (e.g., silt fence) during construction.

The site would be graded such that stormwater would flow into collector basins and would be conveyed through a series of storm drains into retention basins constructed in the northwest and southwest corners of the site. The site would be accessed via an existing entrance at the intersection of Tresham Lane and Oregon Route 234. The existing entrance would be improved , the access road would be extended around the western substation boundary, and it would connect to an existing access road south of the substation. Access improvements would include a 14-foot travel way, on average, with additional area for drainage and maneuverability as needed. Improvements would involve removing vegetation, blading to shape existing road surface, and placing surfacing aggregate (i.e., road rock or riprap) to stabilize the entrance and road surfacing. An existing culvert that spans the contruction entrance would be replaced during access road improvement. The culvert is located within a non-jurisdictional roadside ditch. The project's total area of ground disturbance is 21.25 acres and grading activities would require 77,725 CY of removal and 73,410 CY of fill. Of these volumes, 5 CY of removal and 31,029 CY of fill would occur within 3.5 acres of wetlands. No removal or fill activities would occur within the jurisdictional ditch (Ditch 1). The site would be entirely pervious (gravelled) and no new impervious surfaces would be created. Construction of the substation is planned for 2018.

B. Describe work within waters and wetlands.

Work activities that would occur within wetlands include clearing, grading, installation of erosion control (silt fence or straw wattles) and stormwater management facilities (storm drains and catchment basins), installation of an access road, substation components (Wetland A only), perimeter fencing, and yard gravel (yard rock and road rock). Removal activities would be associated with clearing and grading of the site. Fill activities would be associated with the installation of the various facilities or structures listed above (gravel, fence, substation breaker/tranformers). No removal or fill activities would occur within the jurisdictional ditch (Ditch 1). Culvert replacement would occur within a non-jurisdictional ditch. See attached Site Plan for details (Attachment C).

C. Construction Methods. Describe how the removal and/or fill activities will be accomplished to minimize impacts to waters and wetlands.

Access would occur via an access road constructed off of Tresham Lane (see Attached site plan Attachment C) that wraps around the western boundary of the substation and connects to an existing access road south of the proposed substation.

Erosion control measures (e.g., silt fence, straw wattles, stabilized construction entrance) and stormwater management facilities (e.g., retention ponds and lined ditches) will be installed prior to commencement of removal or fill activities, to minimize sedimentation of wetlands, or portions of wetlands, that occur outside of the grading limits, but within the substation parcel.

The attached erosion control drawings (Attachment C) provide details on the location, design, and installation of proposed erosion control and stormwater management measures. Staging areas are unknown at this time; these will be determined by the selected contractor at a later date and approved by PacifiCorp. Staging of equipment and materials will likely occur within the substation footprint, but will not be located within jurisdictional wetland or water features.

D. Describe source of fill material and disposal locations if known.

The source of fill materials and location of disposal areas are unknown at this time; these will be determined by the selected contractor at a later date and approved by PacifiCorp. Yard rock and road rock would be obtained from a certified, weed free gravel quarry and would be pre-washed. Excess materials would be disposed of at an approved upland location, off-site.

(6) PROJECT DESCRIPTION

E. Construction timeline.

What is the estimated project start date? 2018

What is the estimated project completion date? 2018; 9 months after construction begins

Is any of the work underway or already complete? ☐ Yes ☒ No
If yes, describe.

F. Fill Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name *	Fill Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq.ft. or ac.)	Volume (c.y.)		
Wetland A	36	7	0.5	0.01	5	permanent	yard rock and road rock
Wetland B	530	280	5.5	3.4	30,230	permanent	yard rock and road rock
Wetland C	130	30	5.5	0.09	794	permanent	yard rock or road rock

G. Total Fill Volumes and Dimensions

Fill Impacts to Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)
Total Fill to Wetlands	696	3.5 acres	31,029
Total Fill Below Ordinary High Water	n/a	n/a	n/a
Total Fill Below Highest Measured Tide	n/a	n/a	n/a
Total Fill Below High Tide Line	n/a	n/a	n/a
Total Fill Below Mean High Water Tidal Elevation	n/a	n/a	n/a

H. Removal Volumes and Dimensions (if more than 4 impact sites, include a summary table as an attachment)

Wetland / Waterbody Name*	Removal Dimensions					Duration of Impact**	Material***
	Length (ft.)	Width (ft.)	Depth (ft.)	Area (sq. ft. or ac.)	Volume (c.y.)		
Wetland A	36	7	0.5	0.01	5	permanent	native soils

I. Total Removal Volumes and Dimensions

Removal Impacts to Waters	Length (ft.)	Area (sq. ft or ac.)	Volume (c.y.)
Total Removal to Wetlands	36	0.01acres	5
Total Removal Below Ordinary High Water	n/a	n/a	n/a
Total Removal Below Highest Measured Tide	n/a	n/a	n/a
Total Removal Below High Tide Line	n/a	n/a	n/a
Total Removal Below Mean High Water Tidal Elevation	n/a	n/a	n/a

* If there is no official name for the wetland or waterway, create a unique name (such as "Wetland 1" or "Tributary A").
** Indicate the days, months or years the fill or removal will remain. Enter "permanent" if applicable. For DSL, permanent removal or fill is defined as being in place for 24 months or longer.
*** Example: soil, gravel, wood, concrete, pilings, rock etc.

(7) ADDITIONAL INFORMATION

Are there any state or federally listed species on the project site?	☐ Yes	☒ No	☐ Unknown
Is the project site within designated or proposed critical habitat?	☐ Yes	☒ No	☐ Unknown
Is the project site within a national Wild and Scenic River?	☐ Yes	☒ No	☐ Unknown
Is the project site within the 100-year floodplain?	☐ Yes	☒ No	☐ Unknown

*** If yes to any of the above, explain in Block 4 and describe measures to minimize adverse effects to these resources in Block 5.**

Is the project site within the Territorial Sea Plan (TSP) Area?	☐ Yes	☒ No	☐ Unknown

*** If yes, attach TSP review as a separate document for DSL.**

Is the project site within a designated Marine Reserve?	☐ Yes	☒ No	☐ Unknown

*** If yes, certain additional DSL restrictions will apply.**

Will the overall project involve construction dewatering or ground disturbance of one acre or more?	☒ Yes	☐ No	☐ Unknown

*** If yes, you may need a 1200-C permit from the Oregon Department of Environmental Quality (DEQ).**

Is the fill or dredged material a carrier of contaminants from on-site or off- site spills?	☐ Yes	☒ No	☐ Unknown
Has the fill or dredged material been physically and/or chemically tested?	☐ Yes	☐ No	☒ Unknown

***If yes, explain in Block 4 and provide references to any physical/chemical testing report(s).**

Has a cultural resource (archaeological) survey been performed on the project area?	☒ Yes	☐ No	☐ Unknown

*** If yes, provide a copy of the survey with this application. Do not describe any resources in this document.**

Identify any other federal agency that is funding, authorizing or implementing the project.

Agency Name	Contact Name	Phone Number	Most Recent Date of Contact
n/a			

List other certificates or approvals/denials required or received from other federal, state or local agencies for work described in this application. For example, certain activities that require a Corps permit also require 401 Water Quality Certification from Oregon DEQ.

Approving Agency	Certificate/ approval / denial description	Date Applied
Oregon DEQ	401 Water Quality Certification	TBD

Other DSL and/or Corps Actions Associated with this Site (Check all that apply.)

☐ Work proposed on or over lands owned by or leased from the Corps

☐ State owned waterway — DSL Waterway Lease #

☐ Other Corps or DSL Permits — Corps # — DSL #

☐ Violation for Unauthorized Activity — Corps # — DSL #

☒ Wetland and Waters Delineation — Corps # — DSL # 2015-0187

- ☒ A wetland / waters delineation has been completed (if so, provide a copy with the application)
- ☐ The Corps has approved the wetland / waters delineation within the last 5 years
- ☒ DSL has approved the wetland / waters delineation within the last 5 years

(8) IMPACTS, RESTORATION/REHABILITATION, COMPENSATORY MITIGATION

A. Describe unavoidable environmental impacts that are likely to result from the proposed project. Include permanent, temporary, direct, and indirect impacts.

Permanent, direct impacts include approximately 20 acres of soil disturbance (clearing and grading), 3.5 acres of permanent wetland fill and visual impacts to neighboring properties; however the substation site is not visible from public trails on Lower Table Rock. Temporary impacts include increased noise, dust, human presence, and vehicular traffic in the immediate area during construction. Indirect impacts include a potential decrease in land values for neighboring properties.

B. For temporary removal or fill or disturbance of vegetation in waterways, wetlands or riparian (i.e., streamside) areas, discuss how the site will be restored after construction.

N/A All removal, fill and vegetation disturbance in the wetlands and roadside ditch will be permanent. During operation, the substation will be covered with yard rock and vegetation will not be allowed to return to existing conditions. The site would be graded such that stormwater would flow into collector basins and would be conveyed through a series of storm drains into retention basins constructed in the northwest and southwest corners of the site.

Compensatory Mitigation

C. Proposed mitigation approach. Check all that apply:

- ☐ Permittee-responsible Onsite Mitigation
- ☐ Permittee-responsible Offsite mitigation
- ☒ Mitigation Bank or in-lieu fee program
- ☐ Payment to Provide (not approved for use with Corps permits)

D. Provide a brief description of mitigation approach and the rationale for choosing that approach. If you believe mitigation should not be required, explain why.

Wetland impacts will be mitigated through the purchase of mitigation credits from the Rogue Valley Mitigation/Conservation Bank. The applicant has a signed mitigation agreement for the credits, and has paid a depoit to secure the credits at a 1:1 ratio.

Mitigation Bank / In-Lieu Fee Information:

Name of mitigation bank or in-lieu fee project: Rogue Valley Mitigation/Conservation Bank

Type of credits to be purchased: Palustrine, Energent, Seasonally Flooded Wetlands/Depression

If you are proposing permittee-responsible mitigation, have you prepared a compensatory mitigation plan?

- ☐ Yes. Submit the plan with this application and complete the remainder of this section.
- ☐ No. A mitigation plan will need to be submitted (for DSL, this plan is required for a complete application).

Mitigation Location Information (Fill out only if permittee-responsible mitigation is proposed)

Mitigation Site Name/Legal Description	Mitigation Site Address	Tax Lot #
County	**City**	**Latitude & Longitude (in DD.DDDD format)**

Township	Range	Section	Quarter/Quarter

(9) ADJACENT PROPERTY OWNERS FOR PROJECT AND MITIGATION SITE		
[X] Pre-printed mailing labels of adjacent property owners attached	**Project Site Adjacent Property Owners**	**Mitigation Site Adjacent Property Owners**

Contact Name The Nature Conservancy
Address 1 821 Southeast 14th Ave
Address 2
City, ST ZIP Code Portland OR 97214

Contact Name Jose and Margarita Blanco
Address 1 3899 Tresham Lane
Address 2
City, ST ZIP Code Central Point, OR 97502

Contact Name Stuart Lahtinen et al.
Address 1 PO Box 457
Address 2
City, ST ZIP Code Eagle Point OR 97524

Contact Name Walter McGowan
Address 1 PO Box 786
Address 2
City, ST ZIP Code Gold Hill OR 97525

Contact Name William and Bethany McKetchnie
Address 1 PO Box 306
Address 2
City, ST ZIP Code Eagle Point OR 97524

Contact Name John OConnor
Address 1 8650 Highway 234
Address 2
City, ST ZIP Code Gold Hill OR 97525

Contact Name Dan Crawford Trustee et al
Address 1 9100 Highway 234
Address 2
City, ST ZIP Code Gold Hill OR 97525

Contact Name
Address 1
Address 2
City, ST ZIP Code

(10) CITY/COUNTY PLANNING DEPARTMENT LAND USE AFFIDAVIT (TO BE COMPLETED BY LOCAL PLANNING OFFICIAL)

I have reviewed the project described in this application and have determined that:

☐ This project is not regulated by the comprehensive plan and land use regulations.

☐ This project is consistent with the comprehensive plan and land use regulations.

☐ This project will be consistent with the comprehensive plan and land use regulations when the following local approval(s) are obtained:

- ☐ Conditional Use Approval
- ☐ Development Permit
- ☒ Other Permit (see comment section)

☐ This project is not consistent with the comprehensive plan. Consistency requires:

- ☐ Plan Amendment
- ☐ Zone Change
- ☐ Other Approval or Review (see comment section)

An application ☐ has ☐ has not been filed for local approvals checked above.

Local planning official name (print)	Title	City / County (circle one)
Kelly A. Madding	Development Services Director	

Signature	Date
	2/24/16

Comments:

Type 2 Land Use Permit pursuant to LDO 4.2-1.

(11) COASTAL ZONE CERTIFICATION

If the proposed activity described in your permit application is within the Oregon coastal zone, the following certification is required before your application can be processed. A public notice will be issued with the certification statement, which will be forwarded to the Oregon Department of Land Conservation and Development (DLCD) for its concurrence or objection. For additional information on the Oregon Coastal Zone Management Program, contact DLCD at 635 Capitol Street NE, Suite 150, Salem, Oregon 97301 or call 503-373-0050.

CERTIFICATION STATEMENT

I certify that, to the best of my knowledge and belief, the proposed activity described in this application complies with the approved Oregon Coastal Zone Management Program and will be completed in a manner consistent with the program.

Print /Type Name	Title

Signature	Date

(12) SIGNATURES

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or DSL staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish supplemental information in support of this permit application. I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance.
To be considered complete, the fee must accompany the application to DSL. The fee is not required for submittal of an application to the Corps.

Fee Amount Enclosed	$ 1,170.00

Applicant Signature

Print Name: John Anello	Title: Director PMW
Signature	Date: 4/14/16

Authorized Agent Signature

Print Name: BRIAN Bauman	Title: Environmental Scientist - HDR
Signature	Date: 4/15/16

Landowner Signature(s)

Landowner of the Project Site (if different from applicant)

Print Name	Title
Signature	Date

Landowner of the Mitigation Site (if different from applicant)

Print Name	Title
Signature	Date

Department of State Lands, Property Manager (to be completed by DSL)

If the project is located on state-owned submerged and submersible lands, DSL staff will obtain a signature from the Land Management Division of DSL. A signature by DSL for activities proposed on state-owned submerged/submersible lands only grants the applicant consent to apply for a removal-fill permit. A signature for activities on state-owned submerged and submersible lands grants no other authority, express or implied and a separate proprietary authorization may be required.

Print Name	Title
Signature	Date

(13) ATTACHMENTS

☒ **Drawings (items in bold are required)**

- ☒ **Location map with roads identified** See Figure 1 in Attachment A-1 (WD Report)
- ☒ **U.S.G.S topographic map** Attachment B
- ☒ **Tax lot map** See Figure 2 in Attachment A-1 (WD Report)
- ☒ **Site plan(s)** Attachment C
- ☒ **Cross section drawing(s)** Attachment C
- ☒ **Recent aerial photo** Attachment D
- ☒ Project photos See Appendix C of Attachment A-1 (WD Report)
- ☒ Erosion and Pollution Control Plan(s), if applicable Attachment C
- ☒ DSL/Corps Wetland Concurrence letter and map, if approved and applicable Attachment A-3

☒ Pre-printed labels for adjacent property owners (Required if more than 5) Attachment E

☐ Restoration plan or rehabilitation plan for temporary impacts

☐ Mitigation plan

☒ Wetland functional assessment and/or stream functional assessment See Appendix B-2 & B-3 in Attachment A-1

☒ Alternatives analysis Attachment F

☐ Biological assessment (if requested by Corps project manager during pre-application coordination.)

☒ Stormwater management plan (may be required by the Corps or DEQ) Attachment C

☐ Other:

- ☐
- ☐

Send Completed form to:

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GP
PO Box 2946
Portland, OR 97208-2946
Phone: 503-808-4373

Counties:
Baker, Clackamas, Clatsop, Columbia, Gilliam, Grant, Hood River, Jefferson, Lincoln, Malheur, Marion, Morrow, Multnomah, Polk, Sherman, Tillamook, Umatilla, Union, Wallowa, Wasco, Washington, Wheeler, Yamhill

OR

U.S. Army Corps of Engineers
ATTN: CENWP-OD-GE
211 E. 7th AVE, Suite 105
Eugene, OR 97401-2722
Phone: 541-465-6868

Counties:
Benton, Coos, Crook, Curry, Deschutes, Douglas Jackson, Josephine, Harney, Klamath, Lake, Lane, Linn

Send Completed form to:

DSL - West of the Cascades:

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Phone: 503-986-5200

OR

DSL - East of the Cascades:

Department of State Lands
1645 NE Forbes Road, Suite 112
Bend, Oregon 97701
Phone: 541-388-6112

Send all Fees to:
Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
Pay by Credit Card by Calling 503-986-5253

INSTRUCTIONS FOR PREPARING THE JOINT APPLICATION

This is a joint application, and must be sent to both agencies, who administer separate permit processes. For more complete instructions, contact the Corps and/or DSL or refer to online resources:

- DSL's Removal-Fill Guide; or,
- The Corps' "Permitting 101" video: http://www.nwp.usace.army.mil/Missions/Regulatory.aspx

General Instructions and Tips

- Provide the information in the appropriate blocks of the application form. If you need more space, provide a summary in the space provided and attach additional detail as an appendix to the application.
- Not all items on the application form will apply to all projects.
- For most applications, binding and section dividers are not necessary and require additional handling.

The information requested on the form is necessary for the agencies to begin their review. For complex projects or for those that may have more than minimal impacts, additional information may be necessary to complete the evaluation and make a permit decision. Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

Section 1. Applicant and Landowner Contact information

Applicant: The applicant is the responsible party. If the applicant is an agency, business entity or other organization, indicate the name of the organization and a person that has the authority to sign the application.
Authorized Agent: An authorized agent is someone who has permission from the applicant to represent their interests and supply information to the agencies. An agent can be a consultant, an attorney, builder, contractor, or any other person or organization. An authorized agent is optional.
Landowner: Provide landowner information if different from the applicant. The landowner must also sign the application.

Section 2. Project Information

Provide location information. Latitude and longitude can be found by zooming in to your respective project location and reading off the coordinates displayed on the bottom of the map.
Provide information on wetlands and waterways within the project area. Indicate the category of activities that make up your project.

Section 3. Project Purpose and Need

Explain the purpose and need for the project. Also include a brief description of any related activities needed to accomplish the project objectives.

The following items are required by DSL, as applicable:

- If the removal-fill would satisfy a public need and the applicant is a public body, include any pertinent findings regarding public need and benefit.
- If the project involves fill in the estuary for a non-water dependent use, explain how the project is for public use and/or satisfies a public need.
- If the project is located within a marine reserve or marine protected area, explain how the project is needed to study, monitor, evaluate, enforce or protect the designated area.

Section 4. Description of Resources in Project Area

Territorial Sea: For activities in the Territorial Sea (mean lower low water seaward 3 nautical miles), provide a separate evaluation of the resources and effects determination.

For each wetland, include:

- Whether the wetland is freshwater or tidal, and the Cowardin class and Hydrogeomorphic (HGM) class.
- Source of hydrology and direction of flow (if any).
- Dominant plant species by layer (herb, shrub, tree).
- A functional assessment of the wetland to be impacted (for impacts greater than 0.2 acre, DSL requires use of ORWAP or HGM), should be attached as a separate document.
- Identify any vernal pools, bogs, fens, mature forested wetland, seasonal mudflats, or native wet prairies in or near the project area.
- Refer to wetland delineation report if available, and provide copies to agencies (if not previously provided).
- Describe existing uses, including fish and wildlife use (type, abundance, period of use, significance of site).

For rivers, streams, other waterways, lakes and ponds, include a description of, as applicable:

- Streamflow regime (e.g., perennial year-round flow, intermittent seasonal flow, ephemeral event-driven flow). If flow is ephemeral, provide streamflow assessment data sheet or other information that supports your determination.
- Field indicators used to identify the Ordinary High Water Mark (OHWM).
- Channel and bank conditions.
- Type and condition of riparian (streamside) vegetation.
- Channel morphology (structure and shape).
- Stream substrate.
- Assessment of the functional attributes including hydrologic, geomorphic, biological and chemical and nutrient related functions.
- Fish and wildlife (type, abundance, period of use, significance of site).

Section 5. Alternatives to Avoid and Minimize Impacts to Waters

Provide a brief explanation describing how impacts to waters and wetlands are being avoided and minimized on the project site. For DSL, the alternatives analysis must include:

- Project-specific criteria that are needed to accomplish the stated project purpose.
- A range of alternative sites and designs that were considered with less impact.
- An evaluation of each alternative site and design against the project criteria and a reason for why the alternative was not chosen.
- If the project involves fill in an estuary for a non-water dependent use, a description of Alternative non- estuarine sites must be included.

Section 6. Project Description

Overall Description. Provide a brief description of the overall project, including:

- All associated work with the project both outside and within waters or wetlands.
- Total ground disturbance for all associated work (i.e, area and volume of ground disturbance).
- Total area of impervious surfaces created or modified by the project, if applicable.

Work within Waters and Wetlands. Provide a description of the proposed work within waters and wetlands, including:

- Each removal or fill activity proposed in waters or wetlands, as well as any construction or maintenance of in-water or over-water structures.
- The number and dimensions of in-water or over-water structures (i.e., pilings, floating docks) proposed within waters or wetlands.

Fill Material and Disposal. Provide a description of fill material and procedure for disposal of removed material, including:

- The source(s) of fill materials (if known).
- Locations for disposal area(s) for dredged material, if applicable. If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If using an upland disposal area that is not a DEQ-regulated landfill, a Solid Waste Letter of Authorization or a Beneficial Use Determination from DEQ may be required.

Construction Methods. Describe how the removal and/or fill activities will be accomplished including the following:

- Construction methods, equipment to be used, access and staging areas, etc.
- Measures you will use during construction to minimize impacts to the waterway or wetland. Examples may include isolating work areas, controlling construction access and using specialized equipment or materials. Attach work area isolation and/or erosion and pollution control plans, if applicable.

Construction Timing. Provide the proposed start and completion date for the project. Describe project work that is already complete, if applicable.

Summary of removal and fill activities. Summarize the dimensions, volume and type/composition of material being placed or removed in each waterbody or wetland. Describe each impact on a separate row. For

instance, if two culverts are being removed from Clear Creek, use two rows. Add extra rows if needed, or include an attachment.

The DSL and the Corps use different elevations for determining whether an activity in tidal waters is regulated by the State's Removal-Fill law, the Clean Water Act, and/or the Rivers and Harbors Act. DSL regulates activities below the highest measured tide. The Clean Water Act applies below the high tide line. The Rivers and Harbors Act applies below the mean high water.

Section 7. Additional Information
Any additional information you provide helps the reviewer(s) understand your project and the other approvals or reviews that may be required.

Section 8. Site Restoration/Rehabilitation and Compensatory Mitigation
Site Restoration/Rehabilitation. For temporary disturbance of soils and/or vegetation in waterways, wetlands or riparian (streamside) areas, discuss how you will restore the site after construction. This may include the following:

- Grading plans to restore pre-existing elevations.
- Planting plans and species list (native species only) to replace vegetation in riparian or wetland areas.
- Maintenance and monitoring plans to document restoration to wetland condition and/or vegetation establishment.
- Associated erosion control for site stabilization.

Compensatory Mitigation. Describe your proposed compensatory mitigation approach, or explain why you believe compensatory mitigation is not required. If proposing permittee-responsible mitigation for permanent impact to wetlands, see OAR 141-085-0705 and 33 CFR 332.4(c) for plan requirements. For permanent impact to waters other than wetlands, see OAR 141-085-0765 and 33 CFR 332.4(c) for plan requirements.

Section 9. Adjacent Property Owners for Impact and Mitigation Site(s)
Names and addresses for properties that are adjacent to the project site and permittee responsible mitigation site (if applicable), are required. “Adjacent” means those properties that share or touch upon a common property line or are across the street or stream. If more than 5, attach pre-printed labels. A list of property owners may be obtained by contacting the county tax assessor’s office.

Section 10. City/County Planning Department Land Use Affidavit
This section is required to demonstrate land use compatibility for removal fill permits and water quality certifications. Provide this form to your local planning official for them to complete and sign.

Section 11. Coastal Zone Certification
Your signature for this statement is required for projects within the coastal zone (generally, west of the summit of the Coast Range).

Section 12. Signatures
The application must be signed by the responsible party, landowner and agent, as identified in section 1.

Section 13: Attachments
Project Drawings. A complete application must include a location map, site plan, cross-section drawings and recent aerial photo. All drawings should be clear, legible and formatted for 8.5 by 11 printing. Use the fewest number of sheets necessary for your drawings or illustrations. While illustrations need not be professionally prepared, they should be clear, accurate, and contain all necessary information, as follows:

Location maps (with subject property identified):

- Location map with roads identified
- U.S.G.S. Topographic map
- Tax lot map (with subject tax lot(s) identified)

Site plan(s), including:

- Entire project site and activity areas
- Existing and proposed contours

- Location of ordinary high water, wetland boundaries or other jurisdictional boundaries (include wetland delineation report if not previously provided)
- Identification of temporary and permanent impact areas within waterways or wetlands
- Map scale or dimensions and north arrow
- Location of staging areas and construction access
- Location of cross section(s), as applicable
- Location of mitigation area, if applicable

Cross section drawing(s), including:
- Existing and proposed elevations
- Identification of temporary and permanent impact areas within waterways or wetlands
- Ordinary high water and/or wetland boundary or other jurisdictional boundaries
- Map scale or dimensions

Recent Aerial photo
- 1:200, or if not available for your site, highest resolution possible

DSL Wetland Concurrence (map and letter)

Attachment A:

Wetland Delineation Report and DSL Concurrence

Attachment A-1:

Original Wetland and Waters Delineation Report

Wetlands and Waters Delineation Report

PacifiCorp Table Rock Substation Project

Jackson County, Oregon

April 20, 2015

Contents

Tables

Appendices

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1 Landscape Setting and Land Use

This wetlands and waters delineation report has been prepared for the PacifiCorp Table Rock Substation Site. The objective of the project is to improve the reliability of PacifiCorp electric system in the Grants Pass/Medford area. The proposed work would involve construction of a new substation west of Medford near Table Rock.

1.1 Site Description

The proposed Table Rock substation site is located within the United States Geological Survey (USGS) Sams Valley Quadrangle Map (USGS 1983). The project occurs within Township 36 South, Range 2 West, Section 5 (Figure 1, Appendix A). Tax lot maps are also provided in Appendix A (Figure 2). The study area for this wetland and waterbody delineation includes all tax lots that intersect the proposed substation footprint.

1.2 Landscape Setting

The proposed Table Rock substation site is located in southwestern Oregon. The study area lies within the Klamath Mountains/California High North Coast Range level 3 ecoregion and more specifically the Rogue/Illinois Valleys level 4 ecoregion (EPA 2013a and 2013b). This level 4 ecoregion includes the broad mountain valleys of the Rogue River and Illinois River consisting of terraces and floodplain deposits. These areas support primarily woodland forests (Oregon white oak and California black oak). Due to agricultural and residential development, only remnants of the original vegetation remain (Thorson *et al*. 2003). Soils range from deep silty clay loam to gravelly loam. The climate in this area is typically drier and colder compared to the interior of Oregon since much of the area lies in a rain shadow sheltered from the Pacific Ocean by the Coastal Mountain Range (OWEB 2001).

The study area is located in the middle portion of the Southern Oregon Coastal watershed, within the level 5 Hydrologic Unit Code (HUC), Middle Rogue (17100308) and more specifically within level 6 HUC, Rogue River-Gold Hill (1710030802) (NRCS 2014d).

1.3 Current and Past Land Uses

Prior to settlement and associated development, the project area primarily consisted of a combination of oak savanna and open prairie wetland areas, surrounded by adjacent upland prairie areas. Historic land use activities in the Rogue River basin included mining, agriculture and forestry, power generation, and fish harvesting. At least 44 mines were historically present in the Rogue River basin near the study area in Jackson County. Most mining activities ceased in the 1940s. The Rogue River basin has been used for agriculture since settlement began in the region starting around 1850. Important agriculture products include fruit orchards, cropland, pastureland, forest products and fish harvesting (HDR 2010).

Gravel mining, fruit orchards, cropland, pastureland, forestry and fish harvesting are still performed within the Rogue River basin today, including areas adjacent to the study area. Current land use adjacent to the study area includes local and state roadways, Lower Table Rock management area, a few rural residential homes, and agricultural land (HDR 2010). The study area itself is currently unused but has been used for agriculture, primarily grazing, in the past.

1.4 Site Alterations

The primary alterations to the land in the study area is the result of agriculture development and road construction, which have modified vegetation, soils and hydrology in the study area. The use of the property for primarily grazing has disturbed the native vegetation and allowed for the introduction of non-native and invasive species throughout the site. A stock pond was constructed (timeframe unknown) in the northwestern corner of the study area. It is unclear as to whether the stock pond altered hydrology at the site as the pond is nearly 15 feet deep and does not drain to other areas of the site. It is located on a slight slope and may intersect subsurface flows moving south across the site. Aerial photographs back to 1994 do not show active tilling of the site that might disturb near surface soils. A barn and other remnants of structures and use are found at the northern end of the site. Along the northern edge of the site is a two lane road with adjacent ditches. Both the road and ditches likely intercept runoff that might otherwise infiltrate or sheet flow into the northern portion of the study area.

2 Precipitation Data and Analysis

2.1 Climate and Growing Season

According to the WETS table, average annual precipitation for Medford, Oregon is 18.37 inches (NRCS 2014a). The Medford weather station is the closest weather station and is located approximately 10 miles southeast of the study area. Average temperature ranges from 41.5˚F during the winter to 67.4˚F during the summer (NRCS 2014a). The growing season begins March 25 and ends November 10 (230 days) (NRCS 2014a). Peak stream flows result from snowmelt and rainfall. Most of the precipitation occurs in the winter as snow and late spring as rain. Because much of the precipitation falls as snow, snow melt drives spring hydrology that coincides with the area's peak stream flows.

2.2 Precipitation Data and Analysis

Precipitation for the water year up to the date of the September 9-11, 2014 field investigations (October 1, 2013 to September 8, 2014) was approximately 13.07 inches or 74% of average as recorded in Medford, Oregon (Table 2-1) (NOAA 2014, NRCS 2014a). Recorded precipitation in June and July was within normal while precipitation levels in August were slightly below normal (NOAA 2014, NRCS 2014a). The area received no precipitation in the two weeks

(August 26–September 8, 2014) prior to the start of field work. No precipitation was recorded during the site visit (NOAA 2014).

Table 2-1. Summary of Precipitation between June and September in Medford, Oregon

Month	Recorded Precipitation (inches)[1]	Monthly Precipitation Average (inches)[2]	Percent of Average Recorded	30% chance less than or more than ranges for normal precipitation (inches)
June	0.54	0.68	79%	<0.26 >0.84
July	0.10	0.31	32%	<0.03 >0.36
August	0.63	0.52	121%	<0.00 >0.53
Total Water Year to Date[4]	13.07	---	74%	<15.53 >20.59

1 NOAA 2014

2 NRCS 2014a

3 Total water year to date represents October 1, 2013 to September 8, 2014.

3 Methods

3.1 Background Research

A review of existing literature, maps, and other materials was conducted to identify potential wetlands and waters of the state and U.S. within the study area prior to initiating the field review. Existing documents reviewed included:

- US Geological Survey Topographic – Sams Valley quadrangle map (USGS 1983)
- National Wetland Inventory (NWI) (USFWS 2014)
- Soil survey report of Jackson County, Oregon (Johnson 1993)
- Hydric soil list for Jackson County, Oregon (NRCS 2014b)
- Historic and current aerial images
- Precipitation data from National Oceanic and Atmospheric Administration National Weather Service Forecast for Medford, Oregon (NOAA 2014a)

3.2 Field Methodology

3.2.1 Wetlands

Wetland areas were delineated using the methods described in the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory 1987) and using the Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys,

and Coast Region (Environmental Laboratory 2010). Wetlands were delineated in the study area by HDR September 9 through September 11, 2014.

Sample plots were selected by initial observation of topographic depressions, wetland characteristics (including the presence of hydrophytic vegetation), visual evidence of hydrology, and examination of soil samples. At sites exhibiting positive indicators of wetland characteristics, multiple soil pits were dug in conjunction with vegetative and hydrologic indicators, to aid in the determination of wetland boundaries and location of plots. Once a plot site was selected, a soil pit was dug and soils, hydrology, and vegetation were investigated, and results recorded. In addition to the plots associated with each wetland, sample plots and photo points were recorded.

Sample plots were also taken in areas of lowest topographic areas or other locations to confirm the presence and characteristics of uplands in the study area. Data forms associated with sample plots are included in Appendix B-1 and locations are shown on Figures 5-2 through 5-5 (Appendix A). Representative site photographs from sample plots are included in Appendix C. Methods used to determine the presence of hydric soil, hydrology, and hydrophytic vegetation are discussed below. Variations to the standard methodology, if necessary, are indicated on the data forms.

Soils

Soils at each representative wetland and upland sample plot were typically inspected to a depth of 16 to 24 inches to determine the presence or absence of hydric soil indicators based on the Natural Resource Conservation Service (NRCS) indicators of hydric soils version 7.0 (NRCS 2011). Soil samples were moistened when necessary to aid in the determination of soil matrix and redoximorphic features (if present) hue, value, and chroma (Munsell Color Services 2009). Soil texture was evaluated using field methods described by the USACE and NRCS. Variations to the standard methodology, if necessary, are indicated on the data forms.

Hydrology

Sample plots were examined for evidence of hydrology. Wetland hydrology criteria were considered to be satisfied if it appeared that the soil was seasonally inundated or saturated to the surface for a consecutive number of days greater than or equal to 12.5 percent of the growing season. The growing season for the area was determined based on the period in which temperatures are above 28 degrees Fahrenheit 5 out of 10 years. Using the WETS table for the nearest station (Medford, Oregon), the growing season begins March 25 and ends November 10 (230 days) (NRCS 2014a).

To evaluate wetland hydrology characteristics, primary and secondary indicators were investigated at each of the sample plots. These indicators included the presence of inundation, high water table, saturation, geomorphic position, dry season water table, FAC-neutral, or oxidized rhizospheres.

Because the site investigation was conducted during the late summer, the presence of primary indicators such as inundation and soil saturation were not always present, placing more emphasis on secondary indicators. Variations to the standard methodology, if necessary, are indicated on the data forms.

Vegetation

At each sample plot, the percent cover for each species was visually estimated and recorded. Cover of herbs, woody vines, and shrubs was assessed within a 6-foot radius plot, and trees were estimated within a 30-foot radius circular plot (Environmental Laboratory1987, 2010). In accordance with Corps methodology, greater than 50 percent of the dominant plant species must be classified as hydrophytic or have a prevalence index of less than 3.00 for a site to display a positive wetland vegetation indicator. The dominant plant species were identified using standard taxonomic references (Hitchcock and Cronquist 1973, NRCS 2014c).

Hydrophytic vegetation is defined as vegetation adapted to wetland conditions. To meet the hydrophytic vegetation criterion, more than 50 percent of the dominant plants in each stratum must be Facultative, Facultative Wetland, or Obligate, based on the wetland indicator category assigned to each plant species by USACE (Environmental Laboratory 2014).

Wetland Functional Assessment

The functions of wetlands that may be directly impacted by the project were assessed using the Oregon Rapid Wetland Assessment Protocol (ORWAP) (Adamus et al. 2010). Field investigators recorded information for the two ORWAP field forms (FieldF and FieldS), and recorded relevant observations for the ORWAP office (OF) form, in order to determine the condition, value, and sensitivity of wetlands within the study area. Function assessment forms are in Appendix B-2.

3.2.2 Waters

Ordinary High Water Mark

The ordinary high water (OHW) mark for waters in the study area was determined in the field using the methodology outlined in the Corps Regulatory Guidance Letter 05-05 (USACE 2005). The USACE guidance is consistent with the definition of OHW put forth by the Oregon Department of State Lands (DSL). For purposes of the Clean Water Act, OHW is “that line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” (USACE 2005). These indicators were observed in the field and used to determine the location of the OHW.

Streamflow Duration Assessment

Streams identified as having an OHW line were further evaluated using the Streamflow Duration Assessment Method for Oregon (SDAM) (Nadeau 2011). This methodology is used to distinguish between perennial, intermittent, and ephemeral streams. Field investigators recorded observations of macroinvertebrates, fish or amphibians, wetland plants in or near the streambed, and slope of the stream within the study area to determine likely seasonality of the stream. See Appendix B-3 for SDAM forms.

4 Description of All Wetlands and Other Non-Wetland Waters

4.1 Delineated Wetlands

A total of three wetlands were delineated within the study area (Figure 5-1, Appendix A). Table 4-1 provides a summary of the delineated wetlands. A series of upland sample plots were excavated in various locations within the study area where either hydrophytic vegetation was present or in the case of disturbed locations the presence of hydrologic indicators were observed or to confirm upland.

Table 4-1. Summary of Wetlands Delineated in the Study Area

Wetland	Size Within Study Area (acres)	Cowardin Class[1]	HGM Class[2]	Preliminary Category of the US[3]	Preliminary DSL Jurisdiction[4]
Wetland A	0.01 acres	PEM	Depression	7	Yes
Wetland B	4.68 acres	PEM	Depression/slope	7	Yes
Wetland C	0.09 acres	PEM	Depression/slope	7	Yes

1 Cowardin et al. 1979

2 Adamus et. al. 2010

3 33 CFR Part 328

4 OAR 141-085-0515

4.1.1 Wetland A

Cowardin:	PEM
HGM:	Depression
Size Within Study Area:	0.01 acres

Photo Point 32 (SP-28): Wetland/upland boundary of Wetland A looking north

Source: HDR, September 2014

Description:	Wetland A is palustrine emergent wetland located south of Tresham Lane in a small isolated topographic depression (Figure 5-3). The wetland is not identified on the NWI map (Figure 3). The wetland is contained entirely within the limits of the study area.
Vegetation:	Emergent vegetation is predominantly meadow foxtail (FAC). At least 50% of the dominant plant species in the wetland had an indicator status of FAC or wetter.
Hydrology:	Primary indicators of hydrology were not observed. The wetland is located in a depression that could receive surface runoff and have a high ground water table due to Geomorphic Position (D2). The wetland exhibited strong hydric soils and vegetation as per the procedures in the manual for problematic situations during the dry season, wetland hydrology is assumed to be present earlier in the growing season.
Soils:	Soils are mapped as Debenger Brader loams, 1-15% slopes, which are non-hydric (Figure 4). Soils observed within the wetland plot were mostly loams that had hydric indicators for redox dark surface (F6) (i.e. low chroma and redox features within 10 inches).
Wetland Boundary Determination:	The wetland boundary was determined using the following indicators: changes in local topographic relief based on wetland and upland sample plot locations and changes in plant communities from predominately wetland (meadow foxtail) to upland (medusa head) plants. Refer to Appendix B-1 for sample plots.
Functions:	Wetland A scored highest on the ORWAP for functions in the water quality group, and moderately high for functions in the terrestrial and aquatic support groups. See Appendix B-2 for ORWAP forms.

4.1.2 Wetland B

Cowardin:	PEM
HGM:	Depression/slope
Size Within Study Area:	4.68 acres

Photo Point 21: Wetland B looking southeast

Source: HDR, September 2014

Description:	Wetland B is a palustrine emergent wetland located south of Sams Valley Hwy 234 (Figure 5-2, 5-3, and 5-4). The wetland is situated adjacent to, and outside of, the 100-year floodplain for Rock Creek. Wetland B appears to have a subsurface connection to an unnamed, ephemeral tributary to Rock Creek outside of the study area. No evidence of a drainage or stream is evident in the study area. The wetland is not identified on the NWI map (Figure 3). The wetland extends offsite to the west of the study area.
Vegetation:	Emergent vegetation is predominantly meadow foxtail (FAC). At least 50% of the dominant plant species in the wetland had an indicator status of FAC or wetter.
Hydrology:	Primary indicators of hydrology were not observed. The wetland is located in a depression that could receive surface runoff and have a high ground water table due to Geomorphic Position (D2).Although not included in any data plots the center of the wetland exhibited water stained leaves. The wetland also exhibited strong hydric soils and vegetation as per the procedures in the manual for problematic situations during the dry season, wetland hydrology is assumed to be present earlier in the growing season. The artificial stock pond located in the northwest corner of the wetland had ponded water approximately 8 feet below ground surface.
Soils:	Soils are mapped as Carney clay, 1-5% slopes and Debenger Brader loams, 1-15% slopes, which are non-hydric (Figure 4). Soils observed within the wetland plots were loam and clay soils that had hydric indicators for redox dark surface (F6) (i.e. low chroma and redox features within 10 inches).
Wetland Boundary Determination:	The wetland boundary was determined using the following indicators: changes in local topographic relief based on wetland and upland sample plot locations and changes in plant communities from predominantly wetland (meadow foxtail) to upland (medusa head) plants. Refer to Appendix B-1 for sample plots.
Functions:	Wetland B scored highest on the ORWAP for functions in the water quality group, and moderately high for functions in the terrestrial and aquatic support groups. See Appendix B-2 for ORWAP forms.

4.1.3 Wetland C

Cowardin:	PEM1
HGM:	Depression/slope
Size Within Study Area:	0.09 acres

Photo Point 19 (SP-14): Wetland C looking west

Source: HDR, September 2014

Description:	Wetland C is an emergent wetland located south of Sams Valley Hwy 234 and south of Wetland B (Figure 5-4) in a small depression. The wetland is not identified on the NWI map (Figure 3). The wetland is contained entirely within the limits of the study area.
Vegetation:	Emergent vegetation is dominated by meadow foxtail (FAC). At least 50% of the dominant plant species in the wetland had an indicator status of FAC or wetter.
Hydrology:	Primary indicators of hydrology were not observed. The wetland exhibited strong hydric soils and vegetation as per the procedures in the manual for problematic situations during the dry season, wetland hydrology is assumed to be present earlier in the growing season.
Soils:	Soils are mapped as Carney clay, 1-5% slopes, which are non-hydric (Figure 4). Soils observed within the wetland plots were clay soils that had hydric indicators for redox dark surface (F6) (i.e. low chroma and redox features within 10 inches).
Wetland Boundary Determination:	The wetland boundary was determined using the following indicators: changes in local topographic relief based on wetland and upland sample plot locations and changes in plant communities from predominantly wetland to upland plants. Refer to Appendix B-1 for sample plots.
Functions:	Wetland C scored highest on the ORWAP for functions in the water quality group, and moderately high for functions in the terrestrial and aquatic support groups. See Appendix B-2 for ORWAP forms.

4.2 Waters of the State/US

One ephemeral ditch was identified in the study area (Figure 5-1, 5-2, and 5-3). The ditch has a defined bed and bank and obvious OHW indicators. The OHW determination for waters of the state/US is described in Table 4-2. SDAM forms for the ditch is in Appendix B-3. See Appendix C for photographs of the OHW marked in the field for waterways within the study area.

Table 4-2. Summary of Waters Delineated in the Study Area

Water	Flow Regine	OHW Width[1]	Receiving Water Body	Preliminary Category of the US[2]	Preliminary DSL Jurisdiction[3]
Ditch	Ephemeral	2-4 feet	Rock Creek, a tributary to Sams Creek	5	Yes

1 Widths of all waterways are approximate and may vary +/- feet in sections of OHW; an elevation foot is based on surveyed contours, CAD, and professional land survey information.

2 33 CFR Part 328

3 OAR 141-085-0515

The roadside ditch follows the southside of Highway 234 and Tresham Lane through a series of culverts. Based on topographic maps the ditch likely drains to the west and discharges into Rock Creek. Rock Creek flows into Sams Creek which ultimately discharges to the Rogue River. The ditch was dry at the time of the field visit and based on the SDAM evaluation is ephemeral (SDAM form is in Appendix B-3). The 3-4 foot wide ditch is dominated by herbaceous vegetation, primarily upland grasses. The ditch has indicators of bed and bank conditions and would be considered jurisdictional to DSL and USACE.

Photo Point 34: Ditch looking downstream (west)

Source: HDR, September 2014

5 Deviation from LWI or NWI

The National Wetland Inventory (NWI) did not identify wetlands in the study area (Figure 3, Appendix A). A Local Wetland Inventory (LWI) has not been completed for the study area.

6 Mapping Methods

During the field delineation, sample plot locations, wetland boundaries, and OHW boundaries were recorded using a Trimble GeoXT Explorer GPS unit with sub-meter accuracy using ArcPad 7.1. GPS data was post processed and corrected after data was downloaded. Once post processing was completed, the data was overlain onto the aerial photographs sed for the field maps with project and GPS data using GIS software. The resulting data are shown as points and lines on the maps (Figures 5-1 through 5-5). The coordinate system included a referenced horizontal datum using the OR NAD83 State Plane Coordinate System.

Wetland and waterway features were entered in the GPS in the field with a simple nomenclature ("Stream 1, 2, 3…"; "Wetland 1, 2, 3…"; or by stream name). Waterway features that continued

outside the study area were not mapped. Control points were recorded at culverts within the study area. These were also labeled in the field with a simple nomenclature ("Culvert").

The background aerial imagery used in this report was obtained from Bing Images and is dated June 28, 2010. Data points collected with the GPS receivers used in the field were plotted onto the 2010 aerial images. The aerial imagery does not align with GPS data as the aerial is offset roughly +/- 15 feet. As such, the aerial imagery is provided for general reference only.

According to the NWI, Branch of Resource and Mapping Support, NWI wetlands are identified and mapped based on analysis of vegetation, visible hydrology and geography using high altitude imagery. Due to margin of error associated with this analysis method, on-the-ground investigation may result in revisions to wetland boundaries or classification. Further, NWI maps are for reference only and are not to be used to define or describe the boundaries of any jurisdictional wetland for any federal, state, or local regulatory agency.

7 Additional Information

The USACE and DSL will assert jurisdiction over wetland and water features if they meet regulatory authority they defined by the following,

- The USACE will assert jurisdiction over traditional navigable waters, which includes all the waters described in 33 C.F.R. § 328.3(a)(1), and 40 C.F.R. § 230.3 (s)(1). The agencies will assert jurisdiction over wetlands adjacent to traditional navigable waters, including over adjacent wetlands that do not have a continuous surface connection to traditional navigable waters.
- The DSL regulates "waters" (including rivers and wetlands) for the State of Oregon. DSL regulates waters using volume amounts of materials (i.e., sediments) removed or filled into a regulated water resource and location of activity. Waters of the state regulated under the Removal/Fill Law (Oregon Revised Statue [ORS] 196.795 – .990) are defined under OAR 141-085-0515.

7.1 USACE Preliminary Jurisdictional Determination

Based on observations made at the site of surface or clear subsurface connections to regulated waters and best professional judgment, Wetlands B, C and the ditch (Table 7-1) would be considered jurisdictional and regulated by the USACE. Delineated wetlands meet jurisdictional definition of a wetland as defined in 33 C.F.R. § 328.7. The ditch meets USACE jurisdictional definition of a water as defined by 33 C.F.R. § 328.5.

Wetland A is an isolated wetland that is not connected with a surface or clear subsurface connection to an adjacent jurisdictional waterbody. As such, it is unlikely to be regulated by the USACE.

7.2 DSL Preliminary Jurisdictional Determination

Based on observations made at the site of surface or clear subsurface connections to regulated waters and best professional judgment, Wetlands A, B, C, and the ditch (Table 7-1) would be considered jurisdictional and regulated by the DSL. Each of the delineated wetlands meet jurisdictional definition of a wetland as defined in OAR 141-085-0515(4).

The ditch meets the DSL jurisdictional definition of a water as defined by OAR 141-085-0515(10).

Table 7-1. Jurisdictional Characteristics of Wetlands and Waters in the Study Area

Wetland / Water	Flow Regime (applies to waters only)	Associated Receiving Water Body	More than 10 feet Channel Width	Fish Presence	Contiguous Waterbody	Jurisdictional by DSL[1]	Jurisdictional to USACE[3]
WETLANDS							
Wetland A	---	---	---	---	N/A	Yes	No
Wetland B	---	---	---	---	Offsite wetland and Rock Creek	Yes	Yes
Wetland C	---	---	---	---	Offsite wetland and Rock Creek	Yes	Yes
WATERS							
Ditch	Ephemeral	Rock Creek	No	No	Offsite wetland and Rock Creek	Yes	Yes

1 OAR 141-085-0515

2 33 CFR Part 328, USACE

8 Results and Conclusions

Within the study area there is a total of three wetlands and one ditch (Table 8-1). With the exception of Wetland A, the wetlands and ditch would be considered jurisdictional to the USACE and DSL. Wetland A would be jurisdictional to USACE.

Table 8-1. Summary of Wetlands and Waters Delineated in the Study Area

Wetland	Cowardin Class[1]	HGM Class	Jurisdictional to DSL[3]	Jurisdictional to USACE[4]
Wetland A	PEM	Depression	Yes	No

Table 8-1. Summary of Wetlands and Waters Delineated in the Study Area

Wetland	Cowardin Class[1]	HGM Class	Jurisdictional to DSL[3]	Jurisdictional to USACE[4]
Wetland B	PEM	Depression/slope	Yes	Yes
Wetland C	PEM	Depression/slope	Yes	Yes
Ditch	---	---	Yes	Yes

1 PEM = Palustrine Emergent (Cowardin et al. 1979)

2 Adamus et. al. 2010

3 OAR 141-085-0515

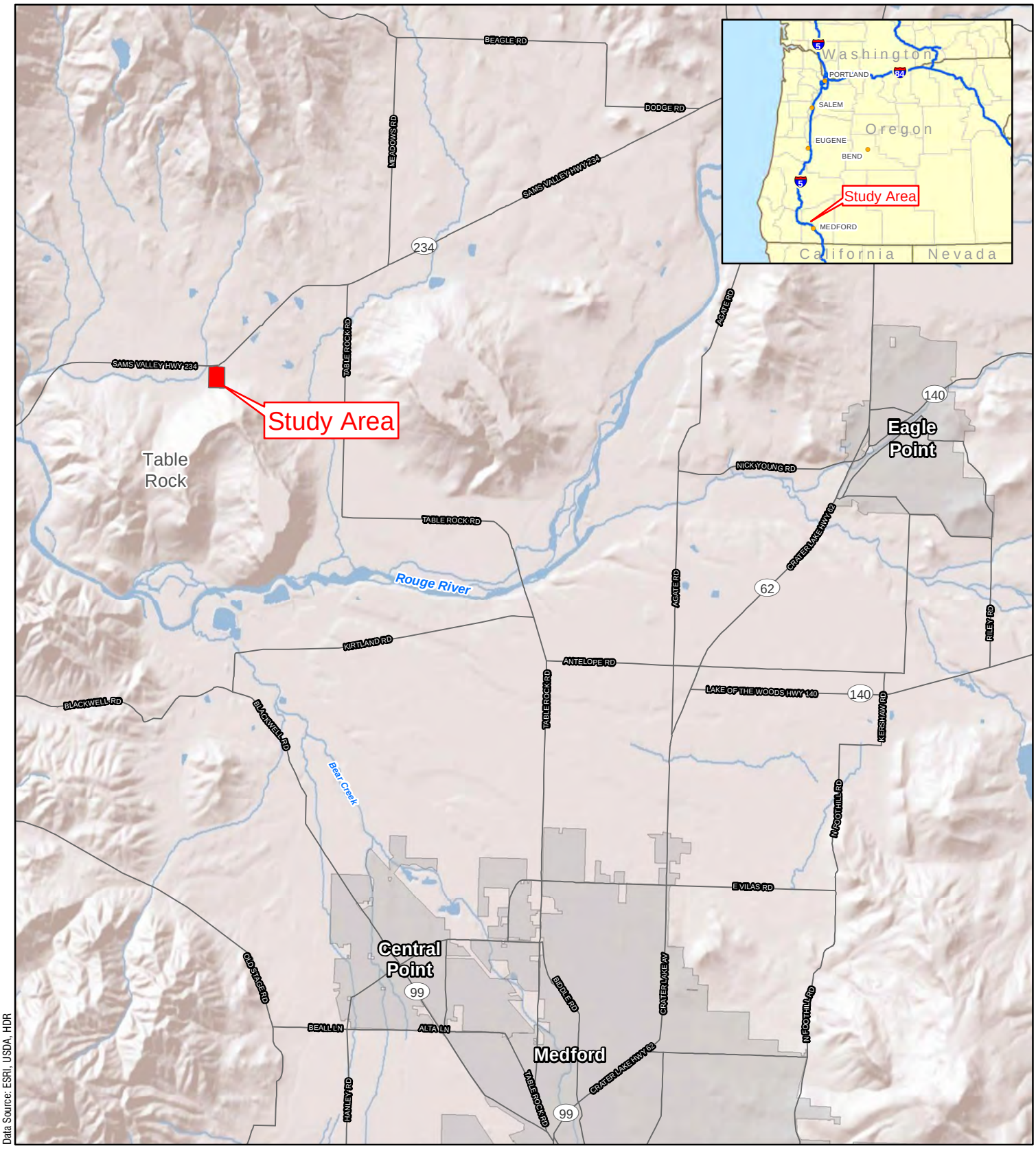
4 33 CFR Part 328, USACE

9 Disclaimer

This report documents the investigation, best professional judgment, and conclusions of the investigators. It should be considered a Preliminary Jurisdictional Determination and used at your own risk until it has been approved in writing by the DSL in accordance with OAR 141-090-0005 through 141-090-0055, and the USACE in accordance with Section 404 of the CWA (OAR 141-090-0035 [7][k]).

Appendix A

Maps



Data Source: ESRI, USDA, HDR

Major Road

Study Area

City Limits

Location Map

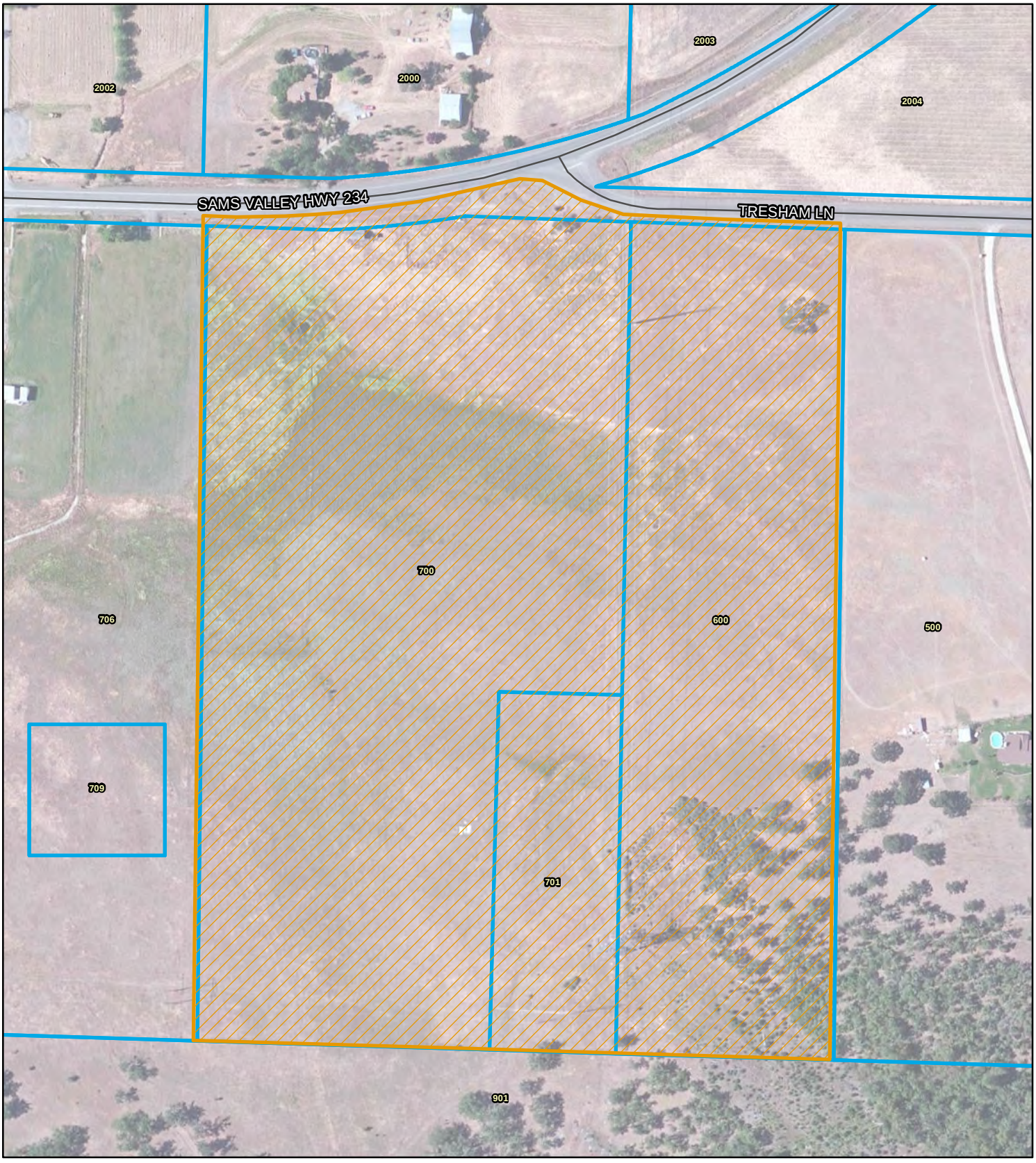
Figure 1

0 1 2

Miles

N

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

Study Area

Taxlot

Street

Taxlot Map

Figure 2

0 200 400

Feet

N

Table Rock Substation | PacifiCorp

Data Source: ESRI, Jackson County,FWS, HDR

Aerial Image Date: 6/28/2010

Study Area

National Wetland Inventory

Street

National Wetland Inventory

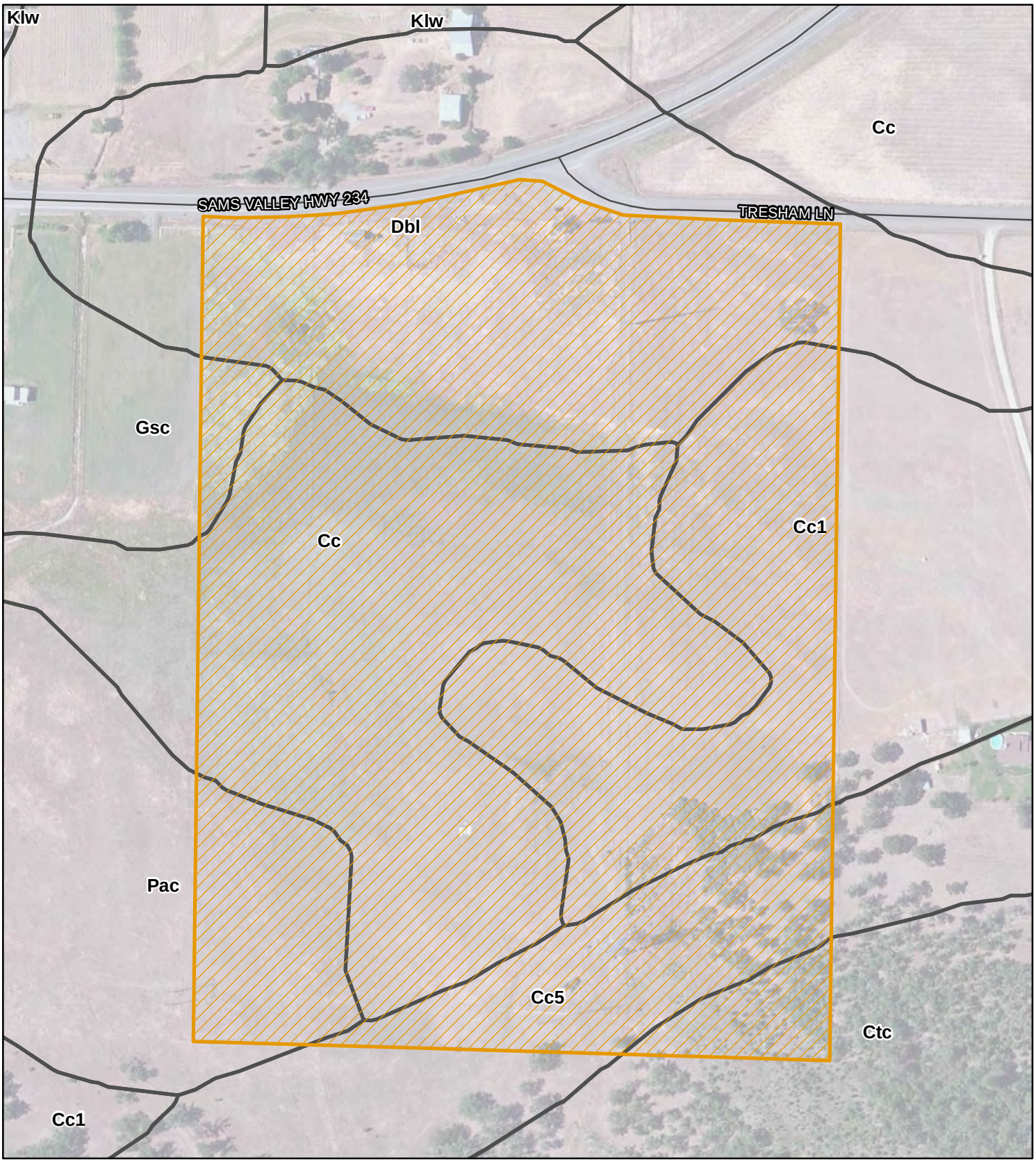
Figure 3

0 200 400

Feet

N

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County,NRCS/USDA, HDR

Aerial Image Date: 6/28/2010

- Carney clay, 1 to 5 percent slopes (Cc1)
- Carney clay, 5 to 20 percent slopes (Cc5)
- Carney-Tablerock complex, 20 to 35 percent slopes (Ctc)
- Coker clay, 0 to 3 percent slopes (Cc)
- Debenger-Brader loams, 1 to 15 percent slopes (Dbl)
- Gregory silty clay loam, 0 to 3 percent slopes (Gsc)*
- Kerby loam, wet, 0 to 3 percent slopes (Klw)
- Langellain-Brader loams, 1 to 7 percent slopes (Lbl)
- Provig-Agate complex, 5 to 15 percent slopes (Pac)
- Tablerock-Rock outcrop complex, 35 to 110 percent slopes (Tro)
- Study Area
- Street

*Indicates Hydric Soil

Soils

Figure 4

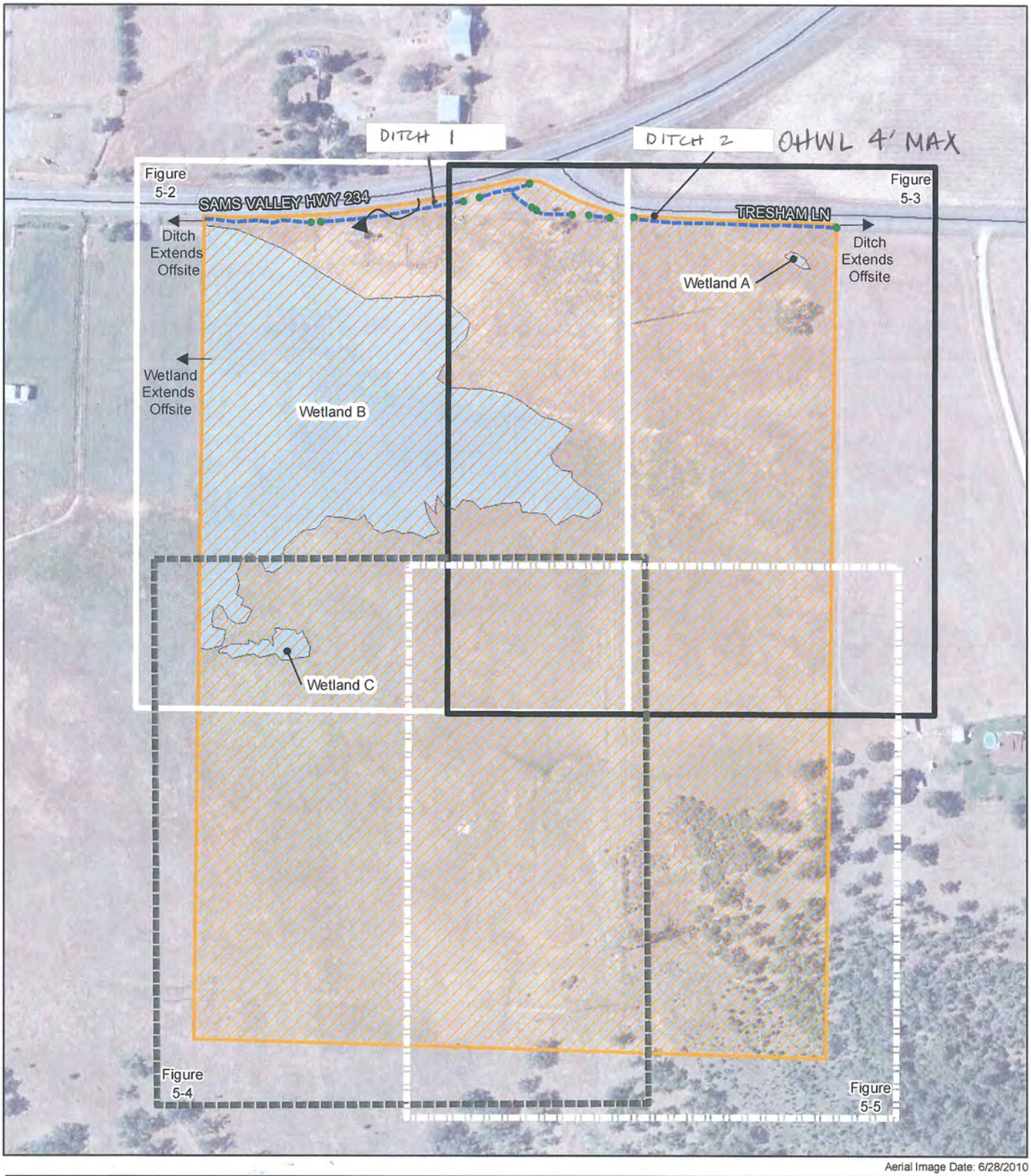
0 200 400

Feet

N

HDR

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

Study Area
Street
Culvert
Delineated Wetland
Delineated Ditch
Direction of Flow

DSL WD # 2015-0187

Approval Issued 10-07-2015

Approval Expires 10-07-2020

*Data plot locations, wetland boundaries were recorded using a resource grade Trimble GeoXH 6000 Global Positioning System (GPS). Mapping accuracy of the unit is 50 cm (1.64 feet) using post-processed differential data correction (DGNSS). GPS data was post-processed and corrected after data was downloaded.

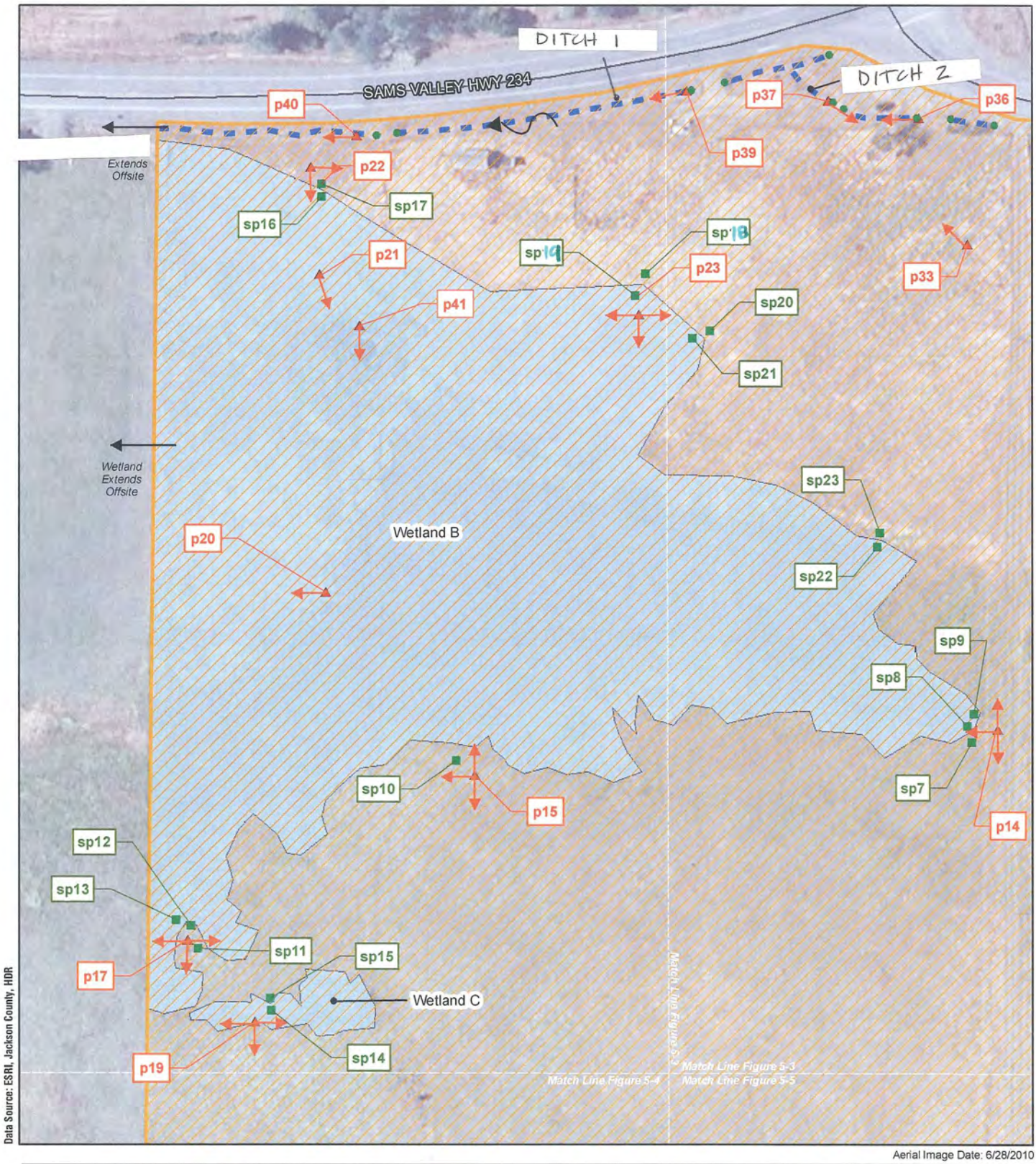
Wetland Delineation Map Index

Figure 5-1

0 200 400
Feet

N

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

Culvert
Photo Point
Sample Plot
Direction of Flow
Study Area
Delineated Wetland
Delineated Ditch
Street

DSL WD # 2015-0187

Approval Issued 10-07-2015

Approval Expires 10-07-2020

Wetland Delineation Map

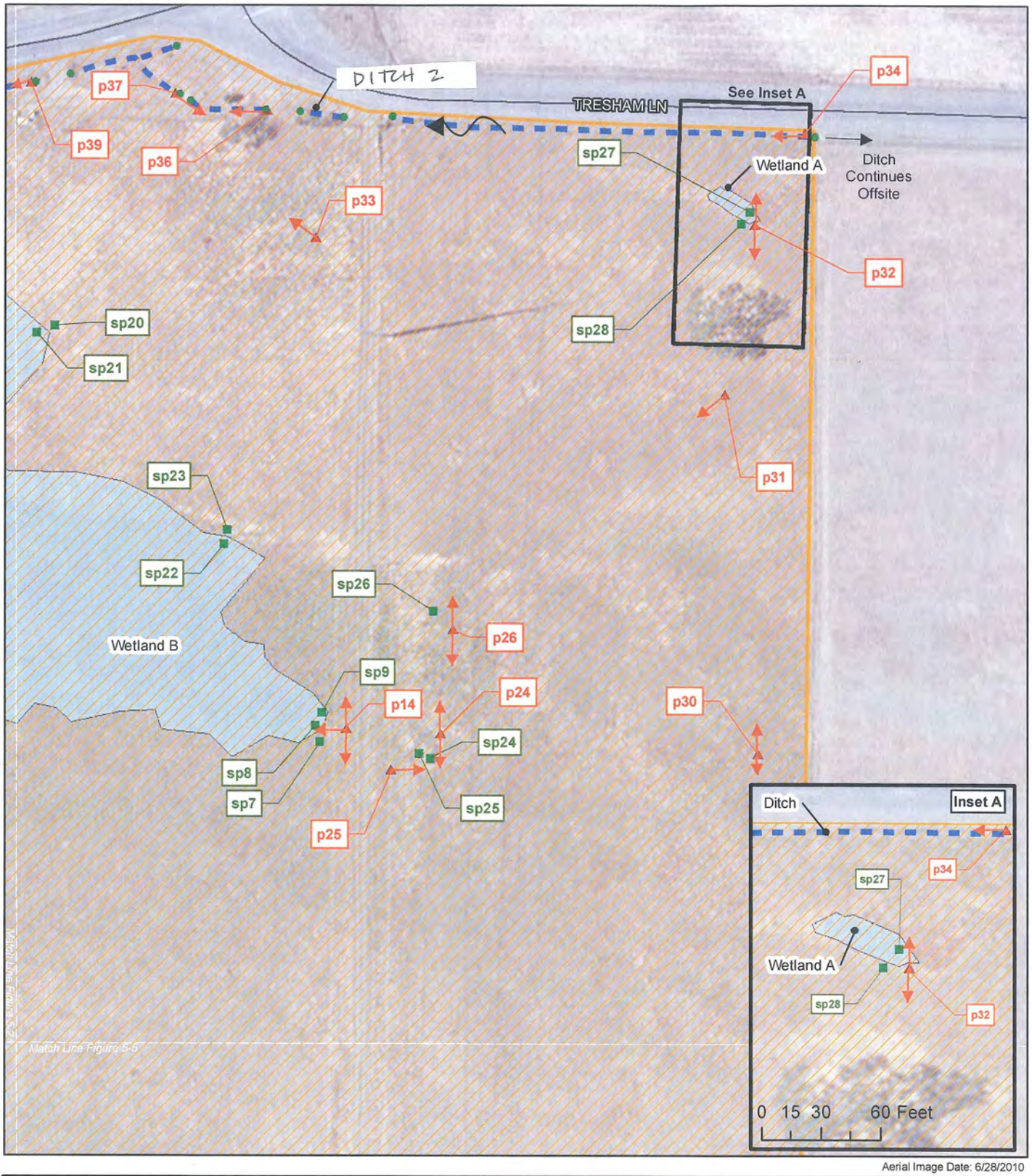
Figure 5-2

0 50 100
Feet

N

*Data plot locations, wetland boundaries were recorded using a resource grade Trimble GeoXH 6000 Global Positioning System (GPS). Mapping accuracy of the unit is 50 cm (1.64 feet) using post-processed differential data correction (DGNSS). GPS data was post-processed and corrected after data was downloaded.

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

Culvert
Photo Point
Sample Plot
Direction of Flow
Study Area
Delineated Wetland
Delineated Ditch
Street

DSL WD # 2015-0187

Approval Issued 10-07-2015

Approval Expires 10-07-2020

Wetland Delineation Map

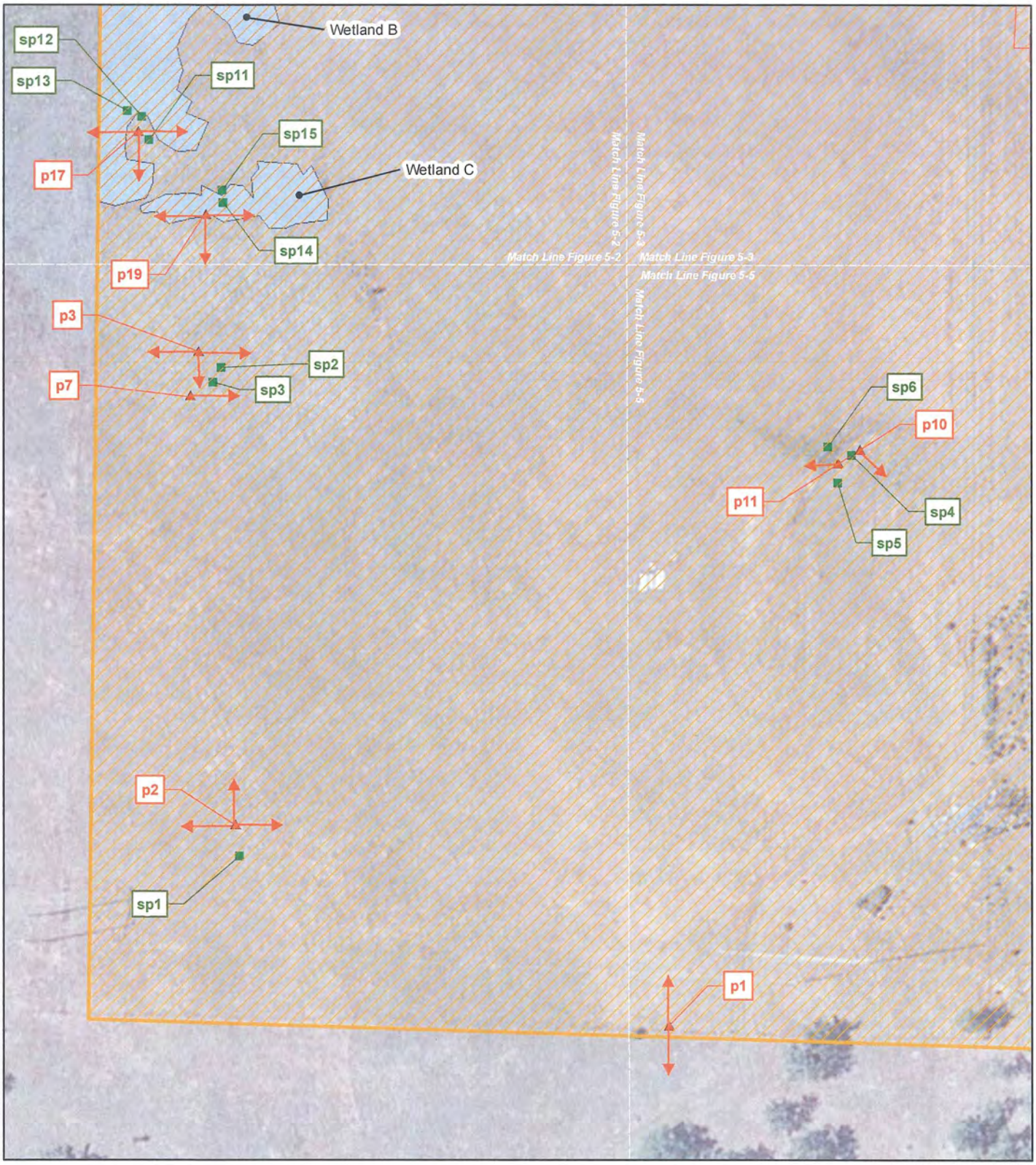
Figure 5-3

0 50 100 Feet

N

*Data plot locations, wetland boundaries were recorded using a resource grade Trimble GeoXH 6000 Global Positioning System (GPS). Mapping accuracy of the unit is 50 cm (1.64 feet) using post-processed differential data correction (DGNSS). GPS data was post-processed and corrected after data was downloaded.

Table Rock Substation | PacifiCorp



Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

▲ Photo Point

■ Sample Plot

Study Area

Delineated Wetland

DSL WD # 2015-0187

Approval Issued 10-07-2015

Approval Expires 10-07-2020

*Data plot locations, wetland boundaries were recorded using a resource grade Trimble GeoXH 6000 Global Positioning System (GPS). Mapping accuracy of the unit is 50 cm (1.64 feet) using post-processed differential data correction (DGNSS). GPS data was post-processed and corrected after data was downloaded.

Wetland Delineation Map

Figure 5-4

0 50 100

Feet

N

Table Rock Substation | PacifiCorp

Data Source: ESRI, Jackson County, HDR

Aerial Image Date: 6/28/2010

▲ Photo Point

■ Sample Plot

Study Area

DSL WD # 2015-0187

Approval Issued 10-07-2015

Approval Expires 10-07-2020

*Data plot locations, wetland boundaries were recorded using a resource grade Trimble GeoXH 6000 Global Positioning System (GPS). Mapping accuracy of the unit is 50 cm (1.64 feet) using post-processed differential data correction (DGNSS). GPS data was post-processed and corrected after data was downloaded.

Wetland Delineation Map

Figure 5-5

0 50 100

Feet

N

Table Rock Substation | PacifiCorp

Appendix B

Data Forms

B1: Wetland Delineation Data Forms

Data Sheet Summary Index

Associated Wetland / Waterbody	Sample Plot ID	Met Vegetation Criteria	Met Soil Criteria	Met Hydrology Criteria	Is Sample Plot within a Wetland?
Upland	SP1	No	No	No	No
Upland	SP2	No	No	No	No
Upland	SP3	No	No	No	No
Upland	SP4	Yes	No	No	No
Upland	SP5	No	No	No	No
Upland	SP6	Yes	No	No	No
Wetland B	SP7	No	No	No	No
Wetland B	SP8	Yes	Yes	Yes	Yes
Wetland B	SP9	Yes	Yes	Yes	Yes
Wetland B	SP10	No	No	No	No
Wetland B	SP11	No	No	No	No
Wetland B	SP12	Yes	No	No	No
Wetland B	SP13	Yes	Yes	Yes	Yes
Wetland C	SP14	Yes	Yes	Yes	Yes
Wetland C	SP15	No	No	No	No
Wetland B	SP16	Yes	Yes	Yes	Yes
Wetland B	SP17	Yes	No	No	No
Wetland B	SP18	Yes	No	No	No
Wetland B	SP19	Yes	Yes	Yes	Yes
Wetland B	SP20	No	No	No	No
Wetland B	SP21	Yes	Yes	Yes	Yes
Wetland B	SP22	Yes	Yes	Yes	Yes
Wetland B	SP23	No	No	No	No
Upland	SP24	Yes	No	No	No
Upland	SP25	No	No	No	No
Upland	SP26	No	No	No	No
Wetland A	SP27	Yes	Yes	Yes	Yes
Wetland A	SP28	No	No	No	No
Upland	SP29	No	No	No	No

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-9-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP1

Investigator(s): L. CLOVELAND B SAHATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 3

Subregion (LRR): A Lat: 42°28'23.708" N Long: 122°57'58.66" W Datum: NAD83

Soil Map Unit Name: PROVIG-AGATE COMPLEX 5-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks: LOCATED ON HILLSLOPE IN LOW SPOT

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. MADIA ELEGANS	15	N	UPL
2. UNKNOWN GRASS	5*	N	—
3. TAENIATHERUM CRINITUM	40	Y	UPL
4. CHORISPORA TENELLA	5	N	UPL
5. EREMOCARPUS SETIGERUS	T	N	UPL
6. BROMUS HORDEACEUS	20	Y	FACU
7. TRAGOPOGON PORRIFOLIUS	T	N	UPL
8.			
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 15%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: Ø (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: Ø (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	55	x 5 =	275
Column Totals:	75 (A)		355 (B)

Prevalence Index = B/A = 4.73

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * COULD NOT IDENTIFY TO SPECIES — NOT INCLUDED IN VEG CALLS

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/1	100					CL	<5% SMALL GRAVELS

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: SOILS TOO CLAYEY TO DIG FURTHER.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-9-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP2

Investigator(s): L. CLEVELAND B. SAHATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28'27.437"N Long: 122°57'58.994"W Datum: NAD 83

Soil Map Unit Name: COKER CLAY 0-3% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: —)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: —)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. PRUNELLA VULGARIS	20	Y	FACU
2. MADIA ELEGANS	10	Y	UPL
3. LOMATIUM UTRICULATUM	5	N	UPL
4. JUNCUS TENUIS	5	N	FAC
5. ALOPECURUS PRATENSIS	5	N	FAC
6. CICHORIUM INTYBUS	5	N	FACU
7.			
8.			
9.			
10.			
11.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: —)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 50

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	25	x 4 =	100
UPL species	15	x 5 =	75
Column Totals:	50 (A)		205 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	7.5YR 3/1	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

CLAYEY SOILS TOO COMPACT TO DIG FURTHER THAN 13 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- X Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

DEEP SURFACE CRACKS ASSOCIATED W/ CLAYEY SOILS PRESENT BUT ARE NOT INDICATOR B6.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-9-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP3

Investigator(s): L. CLEVELAND B SAMATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): NONE Slope (%): 3

Subregion (LRR): A Lat: 42°28'27.295" N Long: 122°57'59.106" W Datum: NAD 83

Soil Map Unit Name: COKER CLAY 0-3% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: —)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: —)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. MADIA CRACCIS	T	N	UPL
2.			
3. CICHORIUM INTYBUS	10	N	FACU
4. TAENIATHERUM CRINITUM	80	Y	UPL
5. POA ANNUA	10	N	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: —)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	80	x 5 =	400
Column Totals:	100 (A)		470 (B)

Prevalence Index = B/A = 4.7

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-13	7.5YR 3/1	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-9-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP4

Investigator(s): B SAMATTIAN, L CLEVELAND Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR): A Lat: 42°28'26.931" N Long: 122°57'52.647" W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes ____ No X		
Wetland Hydrology Present?	Yes ____ No X		

Remarks: Plot adjacent to berm covered in teasel – appears to be artificial

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. CICHORIUM INTYBUS	5	N	FACU
2. ALOPECURUS PRATENSIS	10	N	FAC
3. DIPSACUS FULLONUM	5	N	FAC
4. POA ANNUA	70	Y	FAC
5. MADIA GRACILIS	5	N	UPL
6. TAENIATHERUM CRINITUM	5	N	UPL
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ____ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ____ 3 - Prevalence Index is ≤3.0[1]
- ____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ 5 - Wetland Non-Vascular Plants[1]
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-9	7.5YR 3/1	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

DRY, CLAYEY SOILS PREVENTED DIGGING FURTHER THAN 9 INCHES —

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: PLOT LOCATED IN A LOW SPOT WHERE RUNOFF MAY COLLECT OR HIGH GROUNDWATER LEVELS MAY SHOW

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-9-14

Applicant/Owner: Pacific Corps State: OR Sampling Point: SPS

Investigator(s): B. Sahat, Ian & L. Cleveland Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 3

Subregion (LRR): A Lat: 42°28'26.701"N Long: 122°57'52.803"W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. TAENIATHERUM CRINITUM	50	Y	UPL
2. CICHORIUM INTYRUS	5	N	FACU
3. MADIA GRACILIS	20	Y	UPL
4. DIPSACUS FULLONUM	5	N	FAC
5. POA ANNUA	20	Y	FAC
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	25	x 3 =	75
FACU species	5	x 4 =	20
UPL species	70	x 5 =	350
Column Totals:	100 (A)		445 (B)

Prevalence Index = B/A = 4.45

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SPS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13	7.5YR 3/1	100					CLL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) (**except MLRA 1**)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

SOILS TO DRY, COMPACT TO DIG BELOW 13 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) (**except MLRA 1, 2, 4A, and 4B**)
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) (**LRR A**)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) (**LRR A**)
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PLOT LOCATED IN A LOW SPOT WHERE RUNOFF MAY COLLECT OR HIGH GROUND WATER LEVELS OCCUR

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-9-14

Applicant/Owner: PacifiCorps State: OR Sampling Point: SP6

Investigator(s): L Cleveland B Samatjian Section, Township, Range: 536 T2W R5E

Landform (hillslope, terrace, etc.): berm Local relief (concave, convex, none): Convex Slope (%): 0

Subregion (LRR): A Lat: 42°28'26.96" N Long: 122°57'52.93" W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes ____ No X		
Wetland Hydrology Present?	Yes ____ No X		

Remarks: sample point located on teasel covered berm just North of wetland

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. Dipsacus fullonum	80	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 20

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Soil very rocky in top 7-10 inches & compact probably made of fill

SOILS DRY, COMPACT & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock City/County: Jackson County Sampling Date: 9-10-14

Applicant/Owner: Pacificorps State: OR Sampling Point: SP7

Investigator(s): B. Sahatjian L Cleveland Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): none Slope (%): <1%

Subregion (LRR): A Lat: 42°28'30.828"N Long: 122°57'51.979"W Datum: NAD83

Soil Map Unit Name: Coker clay 0-3% slopes NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ~)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		

Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		

Herb Stratum (Plot size: 6')			
1. Polypogon monspeliensis	40	Y	FACW
2. Eleocharis rostellata	10	N	FACW
3. Taeniatherum caput-medusae	40	Y	UPL
4. Alopecurus pratensis	10	N	FAC
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		

Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	40	x 2 =	80
FAC species	10	x 3 =	30
FACU species	10	x 4 =	40
UPL species	40	x 5 =	200
Column Totals:	100 (A)		350 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

SOILS DRY, COMPACT & COULD NOT DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP8

Investigator(s): L CLEVELAND B SAHATTIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): SWALE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 30.931" N Long: 122° 57' 57.03" W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	Is the Sampled Area within a Wetland? Yes X No ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	40	Y	FAC
2. MADIA GRACILIS	T	N	UPL
3. DIPSACUS FULLONUM	T	N	FAC
4. JUNCUS TENUIS	5	N	FAC
5. POLYPOGON MONSPELIENSIS	25	Y	FACW
6. TAENIATHERUM CRINITUM	10	N	UPL
7. POA ANNUA	5	N	FAC
8. CICHORIUM INTYBUS	T	N	FACU
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP 8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/1	100	2.5Y 5/2	2	R	M		
11-16	10YR 3/1	98	2.5Y 5/2	2	R	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks) ~~OR~~

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: ~~OR~~ STRONG HYDRIC SOILS & VEG — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC DRY SEASON CONDITIONS, ASSUME HYDROLOGY PRESENT EARLIER IN GROWING SEASON. PLOT LOCATED IN LOW SPOT WHERE RUNOFF MAY COLLECT OR HIGH WATER TABLE MAY SURFACE

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP9

Investigator(s): L CLEVELAND R SAHATTIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): VALLEY BOTTOM Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28'31.037"N Long: 122°57'51.964"W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	90	Y	FAC
2. DIPSACUS FULLONUM	T	N	FAC
3. CICHORIUM INTYBUS	T	N	FACU
4. MADIA GRACILIS	T	N	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					CL	
6-16	10YR 3/1	95	10YR 4/6	5	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: STRONG HYDRIC SOILS & VEG — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC DRY SEASON CONDITIONS. ASSUME HYDROLOGY PRESENT EARLIER IN GROWING SEASON. PLOT LOCATED IN LOW SPOT WHERE RUNOFF MAY COLLECT OR HIGH WATER TABLE MAY SURFACE

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP10

Investigator(s): L CLEVELAND B SAMATTJAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): VALLEY BOTTOM Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28'30.557"N Long: 122°57'57.213"W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. CICHORIUM INTYBUS	10	Y	FACU
2. ALOPECURUS PRATENSIS	5	N	FAC
3. MADIA GRACILIS	10	Y	UPL
4. TAENIATHERUM CRINITUM	5	N	UPL
5. PRUNELLA VULGARIS	T	N	FACU
6. DAUCUS SP.	10	N*	—
7.			
8.			
9.			
10.			
11.			
	40 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 60

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	10	x 4 =	40
UPL species	15	x 5 =	75
Column Totals:	30 (A)		130 (B)

Prevalence Index = B/A = 4.3

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * UNABLE TO ID TO SPECIES – NOT INCLUDED IN VEG CALCS.

SOIL

Sampling Point: SP 10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 3/2	100					C/L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: CANNOT DIG BELOW 12 INCHES DUE TO DRY, COMPACTED SOILS

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP11

Investigator(s): J CLEVELAND B SAMATTIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE-FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28'29.09"N Long: 122°57'59.812"W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: /)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: /)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. MADIA GRACILIS	10	N	UPL
2. CICHORIUM INTYBUS	15	Y	FACU
3. DAUCUS SP	15*	N	/
4.			
5. CHORISPORA TENELLA	15	Y	UPL
6. ALOPECURUS PRATENSIS	5	N	FAC
7.			
8. POA SP	10*	N	/
9. POA ANNUA	15	Y	FAC
10. LOTUS CORNICULATUS	T	N	FAC
11.			
	95 = Total Cover		
Woody Vine Stratum (Plot size: /)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	20	x 3 =	60
FACU species	15	x 4 =	60
UPL species	25	x 5 =	125
Column Totals:	60 (A)		245 (B)

Prevalence Index = B/A = 4.08

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * UNABLE TO IDENTIFY TO SPECIES – NOT INCLUDED IN VEG CALCS

SOIL

Sampling Point: SP11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-13	10YR 3/2	100					C/L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: SOILS DRY, COMPACTED & CANT DIG BELOW 13 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP12

Investigator(s): L CLEVELAND B SAHATTIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE-FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28' 29.299"N Long: 122°57'59.814"W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland?	Yes _____ No X
Hydric Soil Present?	Yes _____ No X		
Wetland Hydrology Present?	Yes _____ No X		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. ALOPECURUS PRATENSIS	80	Y	FAC
2. MADIA GRACILIS	5	N	UPL
3. CENTAUREA SOLSTITIALIS	T	N	UPL
4. POA SP	5*	N	—
5.			
6. HIERACIUM SP.	5	N	—
7. TIANIATHERUM CRINITUM	5	N	UPL
8. DAUCUS SP	T	N	—
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks: * UNABLE TO IDENTIFY TO SPECIES — EXCLUDED FROM VEG CALCS

SOIL

Sampling Point: SP12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Redox Features Type[1]	Redox Features Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					CIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP13

Investigator(s): L CLEVELAND B SAHATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE-FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28' 29.33" N Long: 122°58' 0.01" W Datum: NAD 83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ✓)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	85	Y	FAC
2. CHORISPORA TENELLA	T	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/2	100					CL	
8-12	10YR 3/2	95	10YR 5/6	5	C	M	CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: DRY, COMPACTED SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC DRY SEASON CONDITIONS, ASSUME HYDROLOGY PRESENT EARLIER IN GROWING SEASON

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP14

Investigator(s): L CLEVELAND B SAMATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE-FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 28.638" N Long: 122° 57' 58.994" W Datum: NAD 83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ✓)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	85	Y	FAC
2. DAUCUS SP	I	N	—
3.			
4. CICHORIUM INTYBUS	I	N	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum 15			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	100					CLL	
8-13	10YR 3/2	95	10YR 5/6	5	C	M	CLL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 13 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC DRY SEASON, ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON,

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP15

Investigator(s): L. CLEVELAND, B. SAMATTIAN Section, Township, Range: S36 T37W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE-FOOTSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42°28'28.812"N Long: 122°57'59.025"W Datum: NAD 83

Soil Map Unit Name: DEBENIGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Y No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: —)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. MADIA GRACILIS	15	Y	UPL
2. CICHORIUM INTYBUS	20	Y	FACU
3. TAENIATHERUM CRINITUM	20	Y	UPL
4. ALOPECURUS PRATENSIS	10	N	FAC
5. POA SP	10 *	N	—
6.			
7.			
8.			
9.			
10.			
11.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 25

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	10	x 3 =	30
FACU species	20	x 4 =	80
UPL species	35	x 5 =	175
Column Totals:	65 (A)		285 (B)

Prevalence Index = B/A = 4.38

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * UNABLE TO IDENTIFY TO SPECIES – EXCLUDED FROM VEG CALCS

SOIL

Sampling Point: SP15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/1	100					CLL	
15-19	10YR 3/1	99	10YR 4/6	1			CLL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- X Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP16

Investigator(s): L CLEVELAND B SAHATJIAN Section, Township, Range: S36 T2W R5E.

Landform (hillslope, terrace, etc.): SLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 34.736" N Long: 122° 57' 58.79" W Datum: NAD83

Soil Map Unit Name: DEBENGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: _____)			
1. ALOPECURUS PRATENSIS	100	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					L	
4-9	10YR 3/2	95	7.5YR 4/6	5	C	PL	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ____

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 9 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG PRESENT — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC SITUATIONS DURING DRY SEASON, ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP17

Investigator(s): L CLEVELAND B SAHHATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): SLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 34.893" N Long: 122° 57' 58.773" W Datum: NAD83

Soil Map Unit Name: DEBENGER - BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size:)			
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	90	Y	
2. POA SP	10	N	
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	7.5YR 3/3	98	7.5YR 4/6	2	C	PL	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 8 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP18

Investigator(s): L CLEVELAND B SAMMATTAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 2

Subregion (LRR): A Lat: 42°28'34.252"N Long: 122°57'55.455"W Datum: NAD83

Soil Map Unit Name: DEBENGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ~)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	100	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	100					L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

DRY, COMPACT SOIL & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP19

Investigator(s): L CLEVELAND B SAHATJIAN Section, Township, Range: S36 T3W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 2

Subregion (LRR): A Lat: 42° 28'34.093" N Long: 122°57'55.566" W Datum: NAD83

Soil Map Unit Name: DEBENGER BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: /)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: /)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	100	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: /)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	7.5YR 3/2	95	7.5YR 5/6	5	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 14 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG PRESENT — BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC SITUATIONS DURING DRY SEASON, ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-10-14

Applicant/Owner: PacifiCorps State: OR Sampling Point: SP20

Investigator(s): B. Sabatjan L. Cleveland Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3

Subregion (LRR): A Lat: 42° 28' 33.85" N Long: 122° 57' 54.71" W Datum: NAD 83

Soil Map Unit Name: Debenger Brader loams 1-15% slopes NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ✓)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. Poa bulbosa	10	N	FACU
2. Alopecurus pratensis	40	N	FAC
3. Taeniatherum caput-medusae	50	Y	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum Ø

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 40	x 3 = 120
FACU species 10	x 4 = 40
UPL species 50	x 5 = 250
Column Totals: 100 (A)	410 (B)

Prevalence Index = B/A = 4.1

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP 20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	7.5YR 3/3	95	5YR 4/6	5	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP21

Investigator(s): L CLEVELAND B SAMATTIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 2

Subregion (LRR): A Lat: 42°28' 33.81"N Long: 122°57'54.967"W Datum: NAD 83

Soil Map Unit Name: DEBENGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ~)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	90	Y	FAC
2. TAENIATHERUM CRINITUM	5	N	UPL
3. POA ANNUA	5	N	FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/2	95	7.5YR 4/6	5	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG PRESENT – BASED ON MANUAL PROCEDURES FOR PROBLEMATIC SITUATIONS DURING DRY SEASON, ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP22

Investigator(s): L. CLEVELAND B SAMATIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): VALLEY BOTTOM Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 32.216" N Long: 122° 57' 52.998" W Datum: NAD83

Soil Map Unit Name: DEBENGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ~)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		

Herb Stratum (Plot size: 6')			
1. ALOPECURUS PRATENSIS	80	Y	FAC
2. TAENIATHERUM CRINITUM	5	N	UPL
3. POA SP	T	N	—
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	85 = Total Cover		

Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 15

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: (A)		(B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					CIL	
8-16	10YR 3/1	99	10YR 5/6	1	C	M	CIL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X* No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG PRESENT — BASED ON MANUAL PROCEDURES FOR PROBLEMATIC SITUATIONS DURING DRY SEASON ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP23

Investigator(s): B. Sahagyan L Cleveland Section, Township, Range: 536 T2W R5E

Landform (hillslope, terrace, etc.): valley bottom Local relief (concave, convex, none): Convex Slope (%): 2

Subregion (LRR): A Lat: 42° 28' 32.409" N Long: 122° 57' 52.935" W Datum: NAD 83

Soil Map Unit Name: DEBENGER-BRADER LOAMS 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. Alopecurus pratensis	30	Y	FAC
2. Poa bulbosa	30	Y	FACU
3. Agrostis sp	30*	N	~
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	30	x 4 =	120
UPL species	0	x 5 =	0
Column Totals:	60 (A)		210 (B)

Prevalence Index = B/A = 3.5

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 3/2	100					L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 10 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP24

Investigator(s): L CLEVELAND B. SAMATJIAN Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): VALLEY BOTTOM Local relief (concave, convex, none): CONCAVE Slope (%): 0

Subregion (LRR): A Lat: 42° 28' 30.714" N Long: 122° 57' 50.822" W Datum: NAD 83

Soil Map Unit Name: CARNEY CLAY 1-5% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No ____	Is the Sampled Area within a Wetland?	Yes ____ No X
Hydric Soil Present?	Yes ____ No X		
Wetland Hydrology Present?	Yes ____ No X		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ✓)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. JUNCUS TENUIS	90	Y	FAC
2. CICHORIUM INTYBUS	T	N	FACU
3. TRAGOPOGON PORRIFOLIUS	T	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:

- ___ 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- ___ 3 - Prevalence Index is ≤3.0[1]
- ___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ___ 5 - Wetland Non-Vascular Plants[1]
- ___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks:

SOIL

Sampling Point: SP24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/2	99	7.5YR 3/4	1	C	M	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 8 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PLOT LOCATED IN LOW SPOT WHERE RUNOFF MAY ACCUMULATE OR HIGH WATER TABLE SURFACE

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-10-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP 25

Investigator(s): L CLEVELAND B SAHATJIAN Section, Township, Range: S36 T32W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 1

Subregion (LRR): A Lat: 42° 28' 30.761" N Long: 122° 57' 54.036" W Datum: NAD83

Soil Map Unit Name: COKER CLAY 0-3% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ~)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 4')			
1. MADIA GRACILIS	15	Y	UPL
2. CICHORIUM INTYBUS	5	N	FACU
3. JUNCUS TENUIS	5	N	FAC
4. TAENIATHERUM CRINITUM	40	Y	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	65 = Total Cover		
Woody Vine Stratum (Plot size: ~)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 35

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	5	x 4 =	20
UPL species	15	x 5 =	75
Column Totals:	25 (A)		110 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/2	100					L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 10 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

PLOT LOCATED IN A LOW SPOT WHERE SURFACE RUNOFF MAY COLLECT OR HIGH WATER TABLE SURFACE

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLE ROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-11-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP26

Investigator(s): L CLEVELAND SAHATJIAN Section, Township, Range: S36 T39 R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 2

Subregion (LRR): A Lat: 42°28' 31.827"N Long: 122° 57' 50.89"W Datum: NAD83

Soil Map Unit Name: COKER CLAY 0-3% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ——)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ——)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. MADIA GRACILIS	5	Y	UPL
2. ALOPECURUS PRATENSIS	70	Y	FAC
3. CICHORIUM INTYBUS	T	N	FACU
4. TAENIATHERUM CRINITUM	5	Y	UPL
5. POLYPOGON MONSPELIENSIS	5	Y	FACW
6. RUMEX CRISPUS	T	N	FAC
7. POA SP	10*	N	—
8.			
9.			
10.			
11.			
	35 = Total Cover		
Woody Vine Stratum (Plot size: ——)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 65

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 5	x 2 = 10
FAC species 10	x 3 = 30
FACU species 0	x 4 = 0
UPL species 10	x 5 = 50
Column Totals: 25 (A)	90 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * UNABLE TO IDENTIFY TO SPECIES — NOT INCLUDED IN VEG CALCS

SOIL

Sampling Point: SP26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	100					CLL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-11-14

Applicant/Owner: Pacificorps State: OR Sampling Point: Sp 27

Investigator(s): L. Cleveland + B. Sahat, ian Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): A Lat: 42° 28' 34.846" N Long: 122° 57' 47.79" W Datum: NAD83

Soil Map Unit Name: DETZENGER: BRADER LOAM-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? NO (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ✓)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 6')			
1. Alopecurus pratensis	90	Y	FAC
2. Taeniatherum crinitum	10	N	UPL
3. Chorispora tenella	T	N	UPL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: ✓)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum Ø

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	95	10YR 4/6	5	C	M,PL	L	
6-12	10YR 3/2	95	10YR 4/6	5	C	M,PL	L	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- X Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- X Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X* No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * STRONG HYDRIC SOILS & VEG PRESENT – BASED ON PROCEDURES IN MANUAL FOR PROBLEMATIC SITUATIONS DURING DRY SEASON ASSUME HYDROLOGY IS PRESENT EARLIER IN GROWING SEASON, PLOT LOCATED IN A LOW SPOT WHERE RUNOFF MAY COLLECT OR HIGH WATER TABLE OCCUR

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Table Rock Substation City/County: Jackson County Sampling Date: 9-11-14

Applicant/Owner: PACIFICORP State: OR Sampling Point: SP28

Investigator(s): B. Sahakyan & L. Cleveland Section, Township, Range: S36 T2W R5E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5

Subregion (LRR): A Lat: 42° 28' 34.75" N Long: 122° 57' 47.866" W Datum: NAD83

Soil Map Unit Name: DEBENGER-BRADER 1-15% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? ND (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No X	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 6')			
1. Taeniatherum crinitum	95	Y	FACU
2. Alopecurus pratensis	5	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	100 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum Ø

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	95	x 4 =	380
UPL species	5	x 5 =	25
Column Totals:	100 (A)		405 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

SOIL

Sampling Point: SP28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	99	7.5YR 4/6	1	D	M	C	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 12 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: TABLEROCK SUBSTATION City/County: JACKSON COUNTY Sampling Date: 9-11-14

Applicant/Owner: PACIFICORPS State: OR Sampling Point: SP29

Investigator(s): L.CLEVELAND B SAMATJIAN Section, Township, Range: 536 T2W R5E

Landform (hillslope, terrace, etc.): HILLSLOPE Local relief (concave, convex, none): CONCAVE Slope (%): 8

Subregion (LRR): A Lat: 42° 28' 25.925" N Long: 122° 57' 48.468" W Datum: NAD83

Soil Map Unit Name: CARNEY CLAY 5-20% SLOPES NWI classification: UPLAND

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? No Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. QUERCUS GARRYANA	25	Y	FACU
2.			
3.			
4.			
	25 = Total Cover		
Sapling/Shrub Stratum (Plot size: 6')			
1. CEANOTHUS CUNEATUS	30	Y	UPL
2.			
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: 6')			
1. TAENIATHERUM CRINITUM	50	Y	UPL
2. POA SP	10*	N	—
3. SOLIVA SESSILIS	5	N	FAC
4. POA ANNUA	20	Y	FAC
5. FESTUCA SP	5	N	—
6.			
7.			
8.			
9.			
10.			
11.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: —)			
1.			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 10

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 25	x 3 = 75
FACU species 25	x 4 = 100
UPL species 80	x 5 = 400
Column Totals: 130 (A)	575 (B)

Prevalence Index = B/A = 4.42

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

__ 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ 5 - Wetland Non-Vascular Plants[1]

__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: * UNABLE TO IDENTIFY TO SPECIES – EXCLUDED FROM VEG CALCS

SOIL

Sampling Point: SP29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-11	10YR 3/2	100					CL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1) **(except MLRA 1)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

DRY, COMPACT SOILS & UNABLE TO DIG BELOW 11 INCHES

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9) **(except MLRA 1, 2, 4A, and 4B)**
- ___ Salt Crust (B11)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Stunted or Stressed Plants (D1) **(LRR A)**
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water-Stained Leaves (B9) **(MLRA 1, 2, 4A, and 4B)**
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)
- ___ Raised Ant Mounds (D6) **(LRR A)**
- ___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: