

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

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

Ways to submit report:

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

Ways to pay review fee:

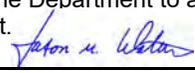
- ❖ By credit card on DSL's epayment portal after receiving the unique file number from DSL's emailed confirmation.
- ❖ By check payable to the Oregon Department of State Lands attached to the unbound mailed hardcopy **OR** attached to the complete signed cover form if report submitted electronically.

Contact and Authorization Information

<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Jason Waters – City Engineer City of Sherwood 22560 SW Pine Street Sherwood, OR 97140	Business phone # 503.925.2304 Mobile phone # (optional) E-mail: WatersJ@SherwoodOregon.gov
--	--

<input type="checkbox"/> Authorized Legal Agent, Name and Address:	Business phone # Mobile phone # E-mail:
--	---

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

Typed/Printed Name: Jason M. Waters Signature: 

Date: 8/23/2024 Special instructions regarding site access:

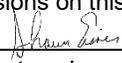
Project and Site Information

Project Name:	Latitude: 45.3637 Longitude: -122.8162 <small>decimal degree - centroid of site or start & end points of linear project</small>
Ice Age Drive	Tax Map # 2S 1W 28C Tax Lot(s) 600, 700, 701, and Bonneville Power right-of-way
Proposed Use: Street construction	Tax Map # 2S 1W 28D Tax Lot(s) 400, 500, 600, 601, 602, 700, 800, 900 & portions of BPA and Dahlke Lane rights-of-way
Project Street Address (or other descriptive location): 21428 SW Dahlke Lane and adjoining parcels to the east	Township 2S Range 1W Section 28 QQ C & D Use separate sheet for additional tax and location information
City: Sherwood County: Washington	Waterway: none River Mile: N/A

Wetland Delineation Information

Wetland Consultant Name, Firm and Address: Pacific Habitat Services Attn: Shawn Eisner 9450 SW Commerce Circle, Suite 180 Wilsonville, OR 97070	Phone # 503-570-0800 Mobile phone # E-mail: se@pacifichabitat.com
---	---

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

Consultant Signature:  Date: 8/3/23

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

Wetland/Waters Present? Yes No Study Area size: **88.99 acre** Total Wetland Acreage: **2.18 acres**

Check Applicable Boxes Below

<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> EFSC/ODOE Project Mgr: <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input type="checkbox"/> Previous delineation/application on parcel? If Known, previous DSL #	<input checked="" type="checkbox"/> Fee payment submitted \$540 <input type="checkbox"/> Resubmittal of rejected report (\$100) <input type="checkbox"/> Request for Reissuance. See eligibility criteria (no fee) DSL # _____ Expiration Date _____ <input type="checkbox"/> LWI shows wetlands or waters on parcel? Wetland ID Code
--	---

For Office Use Only

DSL Reviewer: _____	Fee Paid Date: ____ / ____ / ____	DSL WD # _____
Date Delineation Received: ____ / ____ / ____	Scanned: <input type="checkbox"/> Final Scan: <input type="checkbox"/>	DSL App. # _____

Wetland Delineation Ice Age Drive Sherwood, Oregon

Prepared for

City of Sherwood
22560 SW Pine Street
Sherwood, OR 97140

Prepared by

Tina Farrelly, PWS
Alex Sherman;
Shawn Eisner

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PHS Project Number: 7431

August 3, 2023



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I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation for the Ice Age Drive public works project in Sherwood, Oregon (Township 2 South, Range 1 West, Section 28C, Tax lots 600, 700, 701, & Bonneville Power Administration (BPA) right-of-way; Section 28D, Tax Lots 600, 601, 602, 700, 800, & portions of 400, 500, 900, BPA right-of-way, and Dahlke Lane right-of-way). This report presents the results of PHS's wetland delineation within the study area. Figures, including a map depicting the location of wetlands within the study area, are located in Appendix A. Data sheets documenting on-site conditions are in Appendix B. Ground-level photos of the site are located in Appendix C.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The study area is located east of SW Oregon Street, beginning about 900 feet south of the intersection of SW Oregon Street and SW Tualatin-Sherwood Road, in Sherwood, Oregon. Land use around the study area includes industrial, commercial, single-family residential, and open space. The Bonneville Power Administration (BPA) right-of-way trends northwest to southeast through the study area.

The study area consists of moderately to steeply sloping topography, with the highest elevations located in the western portion of the study area. Elevations on site range from 190 to 250 feet. The lowest elevations are in the southwest portion of the study area. The site generally consists of cleared and undeveloped, and/or forested areas. A few areas have been developed for light industrial uses. Several single-family homes and associated outbuildings are present with the study area.

Patches of forest remain, and dominant species include Douglas fir (*Pseudotsuga menziesii*, FACU), Oregon white oak (*Quercus garryana*, FACU), Pacific madrone (*Arbutus menziesii*, UPL), snowberry (*Symphoricarpos albus*, FACU), Himalayan blackberry (*Rubus armeniacus*, FAC), and poison oak (*Toxicodendron diversilobum*), with groundcover dominated by a variety of weedy grasses and forbs.

The study area is within the Rock Creek-Tualatin River (170900100503) subwatershed. Two wetlands are present within the study area and are described in Section E below.

The Natural Resources Conservation Service (NRCS) depicts three soil map units within the study area, including Briedwell stony silt loam, 0-7% slopes, Laurelwood silt loam, 3 to 7 percent slopes, and Xerochrepts-Rock outcrop complex. None of these soil map units are listed as hydric.

B. Site Alterations

Historic aerials dating back to 1952 show the north side of the BPA corridor mostly forested with the south side being cleared. Patches of forested and shrub cover developed in the cleared area until around 2005 when the south side of the corridor was cleared again. By 1994, areas in the

forest north of the corridor had been cleared to build single-family homes. By the year 2000, aerial photos suggest that the area adjacent and west to where Wetland A is located had been likely filled and developed for commercial or light industrial purposes.

The Google Earth historical photos of the study area from 1994 (the earliest available) through 2023 area shows substantive changes on the site. As stated above, the site was forested, and relatively unmanaged until the early 2000’s. By that time several single-family homes were already present within the study area. Beginning in 2000, the western portions of tax lots 701, 800 and 900 were cleared. Between August 2003 and July 2004, tax lot 600 was logged. In 2007, tax lot 701 was being used for vehicle storage, and by 2010, this parcel was being used for vehicle, container, and equipment storage. By April 2015, the western portion of tax lot 800 was also being used for vehicle storage. Between July 2016 and July 2017, tax lot 601 was logged. By May 2021, this tax lot was also used for vehicle storage. In July of 2022, tax lot 600 is cleared and scraped, in preparation for site construction, and by May of 2023, three building foundations were constructed, and the southern portion apparently being prepped for additional structures.

No other recent fill material or deposits were observed within the study area.

C. Precipitation Data and Analysis

PHS performed the wetland delineation and data collection on April 14, 2023. For climate analysis, PHS used the Direct Antecedent Rainfall Analysis Method (DAREM) for all field dates. DAREM categorizes rainfall of prior periods as, 1) drier than normal (sum is 6-9), 2) normal (sum is 10-14), 3) wetter than normal (sum is 15-18). The weighted average, as shown in Table 1, is then applied for the wetland hydrology assessment. The REX 1 S, OR Weather Station (6.4 miles southwest of the study area) and WETS table was used for the analysis. Recorded precipitation for the water year, beginning on October 1, 2022, and through April 13, 2023, was 31.18 inches, which is 88 percent of normal (35.63 inches). Note that REX 1 S, OR was the closest station that had sufficient historical data to conduct the precipitation analysis.

The weighted average precipitation for the three months preceding the march fieldwork was normal. Approximately 2.88 inches of precipitation was recorded in the two weeks preceding the day of the March 14 fieldwork, with a trace of precipitation falling on that day.

Table 1: Comparison of recorded monthly precipitation at REX 1 S, OR Weather Station to the WETS Tables, prior to April 2023 wetland delineation field work.

Prior Month Name	WETS Rainfall Percentile (inches)		Measured Rainfall (inches)	Condition Dry, Wet, Normal	Condition Value (1=dry, 2=normal, or 3=wet)	Month weight	Multiply Previous two columns
	30th	70th					
January	4.44	7.70	2.74	Dry	1	1	1
February	2.74	5.18	3.32	Normal	2	2	4
March	3.65	5.83	4.34	Normal	2	3	6
Sum*							11

*1) drier than normal (sum is 6-9), 2) normal (sum is 10-14), 3) wetter than normal (sum is 15-18)

Results from the Antecedent Precipitation Tool (APT) developed by the United States Army Corps of Engineers (USACE) showed that the rainfall levels were above the 30-year normal range; a drought index of ‘mild wetness’; and normal conditions given a summed score of 14.

Below is an accumulation graph illustrating precipitation levels from two weeks prior to the site visit on April 14th, 2023. Precipitation data from SHERWOOD 0.6 SW shows that rainfall accumulation levels reached 5.72 inches. The total precipitation for the first half of April in 2023 exceeded the average total precipitation for the whole month of April every year since 1953 except for April of 1993 that experienced 7.00 inches total, indicating that rainfall was above average prior to the site visit.



Graph 1. Accumulation graph from SHERWOOD 0.6 SW, OR spanning from March 31st to April 13th, 2023.

D. Methods

Wetland Methodology

PHS delineated the limits of the wetlands on the site based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine On-site Determination, as described in the *Corps of Engineers Wetland Delineation Manual, Wetlands Research Program Technical Report Y-87-1* (“The 1987 Manual”) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. PHS conducted the wetland delineation within the study area on April 14, 2023.

The entire study area was investigated for the presence of wetlands or other waters. Two wetlands were delineated within the study area. Wetlands A and B were delineated based on topographic changes and changes from observed hydric soils to soils where no hydric indicators

were observed. Vegetation changes from facultative shrubs to upland trees were also used to determine the wetland/upland boundary.

The vegetation throughout the project area generally consists of forested patches and open space dominated by facultative grasses and weedy forbs. Sample points 1, 2, 5, 9, and 10 are representative of the upland areas throughout the study area. The upland areas do not exhibit surface indicators of wetlands (i.e. ponded surface water, geomorphic position, or stunted/stressed vegetation, FACW or wetter vegetation, etc.).

Non-wetland waters are not present within the study area.

E. Description of all Wetlands and Other Non-Wetland Waters

Wetlands A and B

Wetlands A is located almost entirely within the BPA right-of-way in the northeastern portion of the study area; Wetland B is located predominantly on tax lot 700 in the eastern portion, though does extend eastward beyond the study area. Both wetlands lack surface water connections to any other wetlands or waterways; this includes the offsite extent of Wetland B (see Section H). The following table summarizes Wetlands A and B.

Table 2. Summary of Wetland Areas within the Ice Age Drive Study Area

Wetland	Size (square feet / acres)	Cowardin Class	Hydrogeomorphic (HGM) Class	Dominant Vegetation
A	47,680 / 1.09	PSSH*	Depressional	Rose (<i>Rosa</i> sp.)
B	47,604 / 1.09	PFOH**	Slope	Oregon ash (<i>Fraxinus latifolia</i> , FACW); dove's-foot crane's-bill (<i>Geranium molle</i> , UPL); creeping buttercup (<i>Ranunculus repens</i> , FAC); and a grass species that not able to be identified.
Wetland Total	96,284 / 2.18			

*PSSC - palustrine/scrub-shrub/permanently flooded

**PFOH – palustrine/forested/permanently flooded

A hydrogen sulfide odor was noted within Wetland A and that satisfies both hydric soil and wetland hydrology criteria; Soils within Wetland B meet the criteria for Redox dark surface (F6). Portions of Wetland A exhibited surface water, while both Wetlands A and B exhibited a high water table and saturation within the upper 12 inches of the soil profile.

Wetland A is isolated, bordered by industrial and commercial activity to the north and upland on the south side, and likely experiences prolonged periods of ponding throughout given its geomorphic position; onsite observations revealed that ponding was greater than 1 foot in certain areas. The dominant vegetation throughout the wetland is swamp rose (*Rosa pisocarpa*) with intermixed invasive blackberry found in the periphery of the wetland. The inner portion of the wetland is shallow, open water. Hydrology is sourced mainly from precipitation and runoff from the surrounding topography that slopes towards the wetland.

Wetland B continues north beyond the study area. Hydrology sources for the wetland include precipitation, surface runoff, and subsurface lateral flows. Surface hydrology flows northward from the onsite pond at the southern end of the wetland. At the time of the site visit, sheet flow spanned most of the wetland's width as it flowed towards the fences on the north property border. Areas that were inundated with flowing water were generally grassy with some creeping buttercup intermixed and a few shrub-sized ash trees found near the northern end.

F. Deviation from LWI or NWI

The study area is located outside of the City of Sherwood city limits. The US Fish and Wildlife Service's National Wetlands Inventory (NWI) maps a Freshwater Forested/Shrub Wetland palustrine, forested, broad-leaved deciduous, seasonally flooded wetland in the eastern portion of the site. This is consistent with PHS's delineation of Wetland B. However, PHS also delineated Wetland A within the BPA right-of-way.

NWI maps are generated primarily through the interpretation of color infrared aerial photographs from 1981 (scale of 1:58,000), with limited "ground truthing" to confirm the interpretations. The small size of the on-site wetland, and the scale of the aerial photographs used to prepare the NWI is the likely reason for the discrepancy between the wetlands mapping and the existing on-site conditions.

G. Mapping Method

PHS flagged the limits of Wetlands A and B within the study area with blue pin flags; Lime green tape was used for sample point locations. Wetlands and sample points were surveyed by PHS using a Trimble Geo7x GPS unit with submeter accuracy. The tax lot boundaries were downloaded as shapefiles from the Washington County GIS webpage.

H. Additional Information

The delineated portion of Wetland B across tax lots 700 and 800 represents the southern extent of a wetland that continues north and eastward across several parcels to the north. Though the extent of offsite wetlands on lots 500, which abuts lot 700 to the north, and lot 400 beyond is unknown, the central and northern limits of the wetland have been delineated. Prior delineations include WD2017-0008 for the Willamette Water Supply Program Water Treatment Plant as well as WD2020-0015 for an industrial parcel on Tualatin Sherwood Road (see Appendix E for both concurrence letters; note that for both of these delineations the offsite extent of Wetland B is identified as Wetland C). Though these delineations had separate study areas, the extents of Wetland C delineated by 17-0008 and 20-0015 are now encompassed within tax lot 2S128D001600. It is the results of these two delineations that confirm the lack of hydrologic connection to other wetlands or waterways; more specifically 20-0015, which confirms that even prior to development of the industrial area that Wetland C, the offsite continuation of Wetland B, lacked a direct connection to other wetlands.

I. Results and Conclusions

PHS delineated Wetlands A and B within the study area. The total area of wetland within the study area boundary is 96,284 square feet (2.18 acres), as summarized in Table 2 in Section E above.

J. Required Disclaimer

This report documents the investigation, best professional judgment and conclusions of the investigators. It is correct and complete to the best of our knowledge. It should be considered a Preliminary Jurisdictional Determination of wetlands and other waters and used at your own risk unless it has been reviewed and approved in writing by the Oregon Department of State Lands in accordance with OAR 141-090-0005 through 141-090-0055.

III. REFERENCES

Adamus, P.R. and D. Field. 2001 *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites. Willamette Valley Ecoregion, Riverine Impounding and Slopes/Flats Subclasses*. Oregon Division of State Lands, Salem, OR.

GoogleEarth Map. 2023 aerial photograph.

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NRCS monthly rainfall data for Portland-Hillsboro AP. <https://efotg.sc.egov.usda.gov/>

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<https://www.fws.gov/wetlands/data/mapper.html>

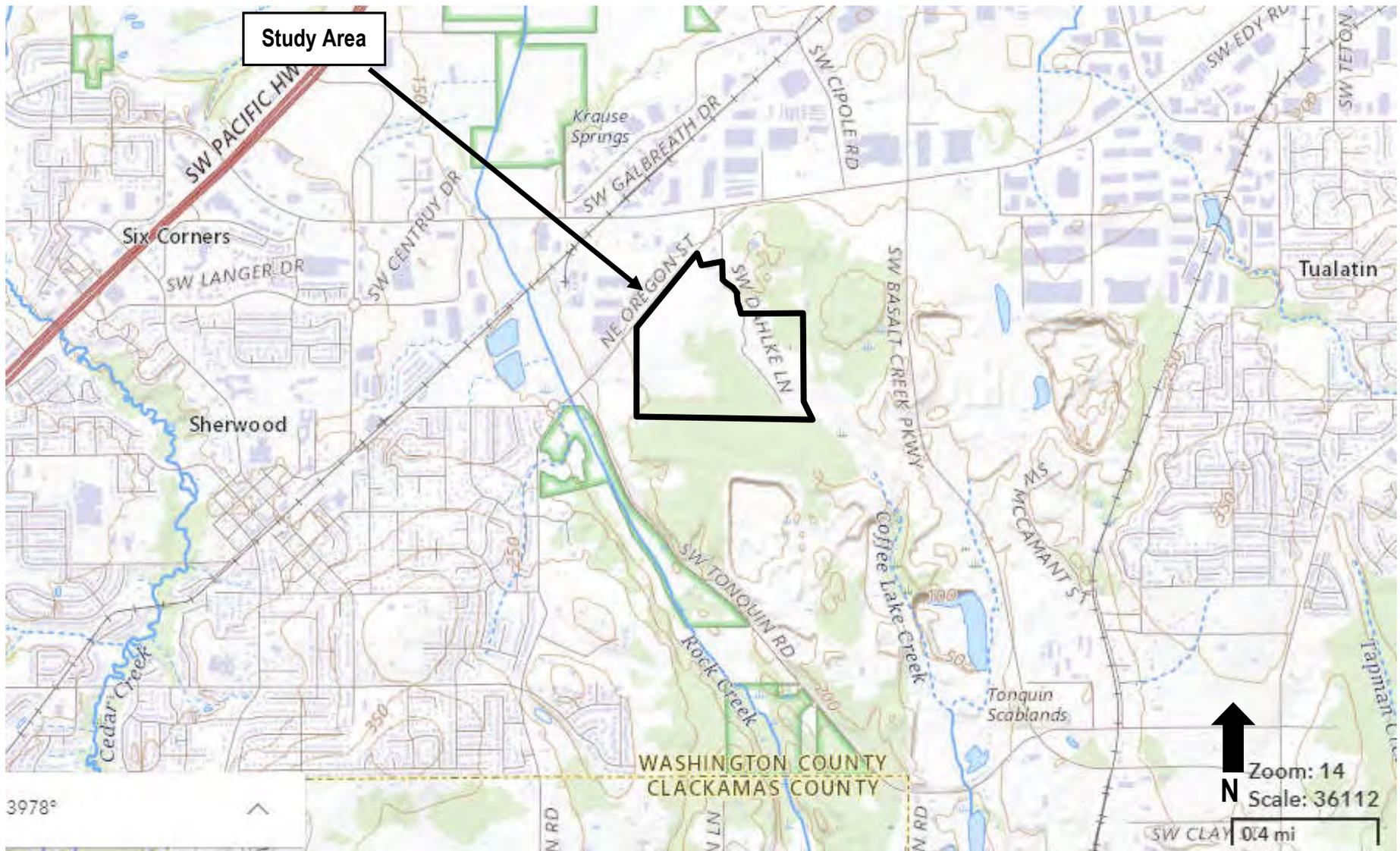
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<https://viewer.nationalmap.gov/basic/?basemap=b1&category=ustopo&title=US%20Topo%20Download>

Historic Aerials by NETRONLINE.
<https://historicaerials.com/viewer>

Appendix A

Figures





Project #7431
7/10/2023

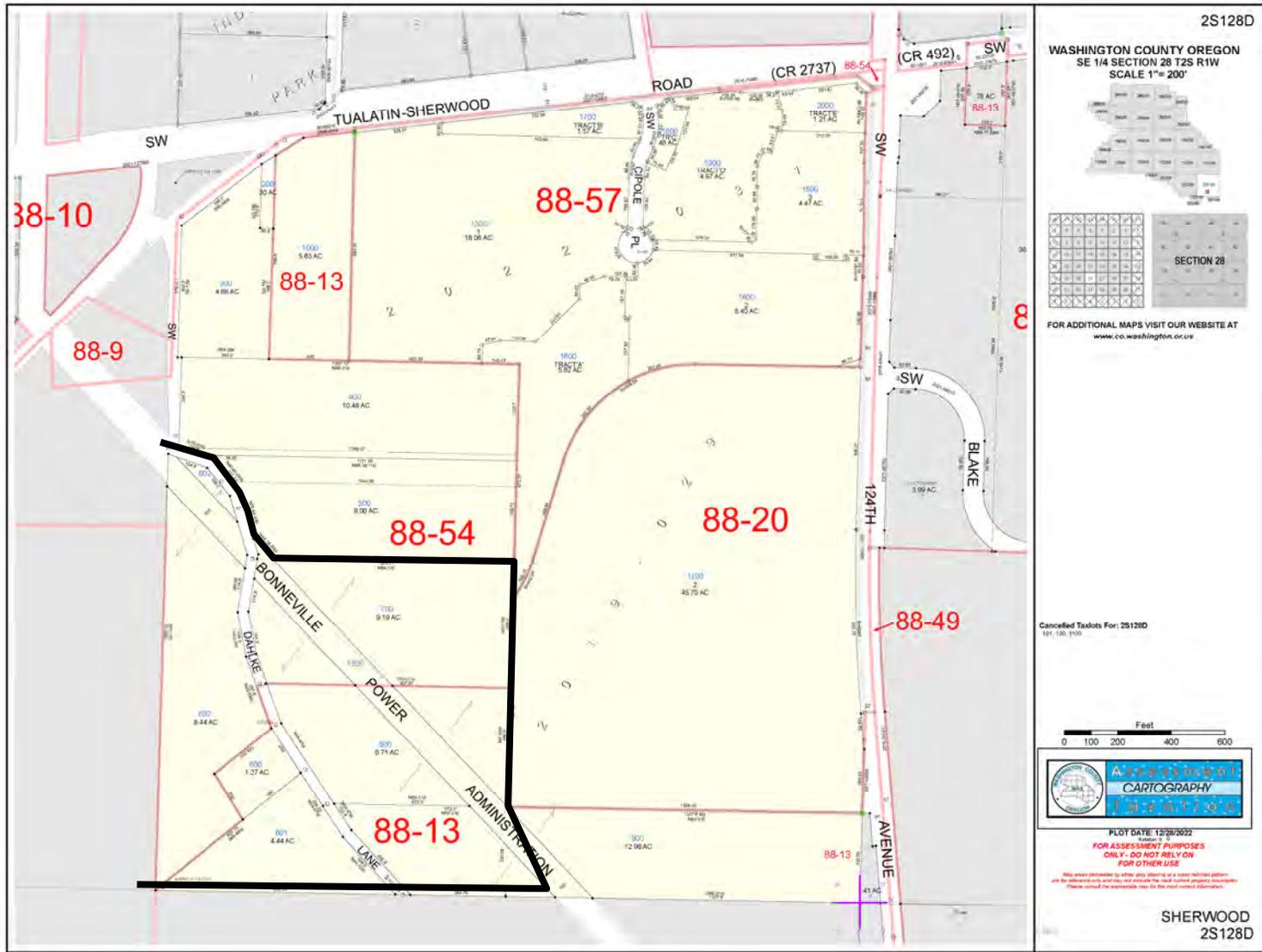


Pacific Habitat Services, Inc.
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General Location and Topography
Ice Age Drive - Sherwood, Oregon
United States Geological Survey (USGS) Sherwood, Oregon 7.5 quadrangle, 2020
(viewer.nationalmap.gov/basic)

FIGURE

1



Project #7431
7/10/2023



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Tax Lot Map
Ice Age Drive - Sherwood, Oregon
The Oregon Map (ormap.net)

FIGURE
2B



July 11, 2023

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper.

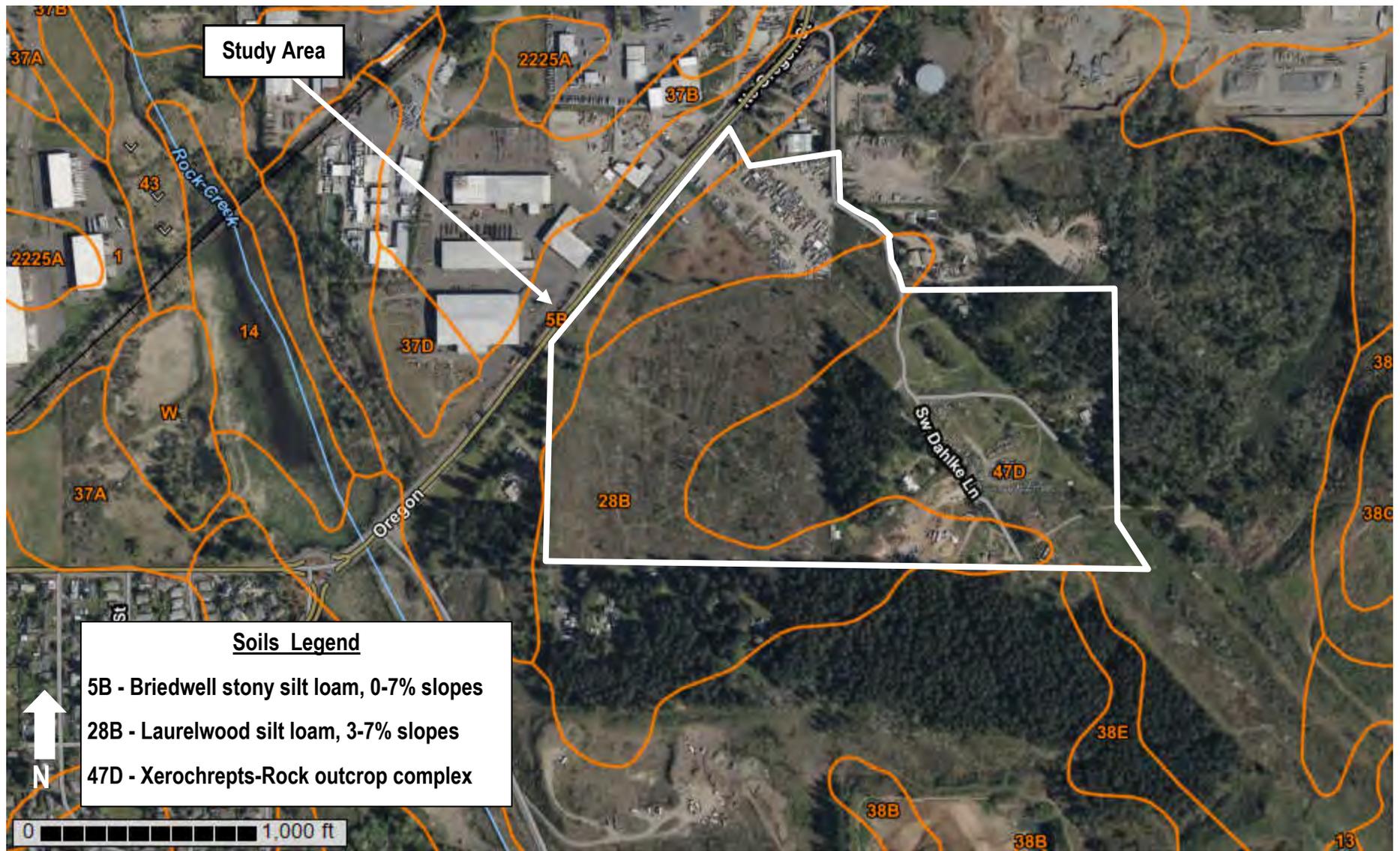
Project #7431
7/10/2023



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Local Wetlands Inventory
Ice Age Drive - Sherwood, Oregon
David Evans & Associates, Inc., 1992

FIGURE
3



Study Area

Soils Legend

- 5B - Briedwell stony silt loam, 0-7% slopes
- 28B - Laurelwood silt loam, 3-7% slopes
- 47D - Xerochrepts-Rock outcrop complex



0 1,000 ft

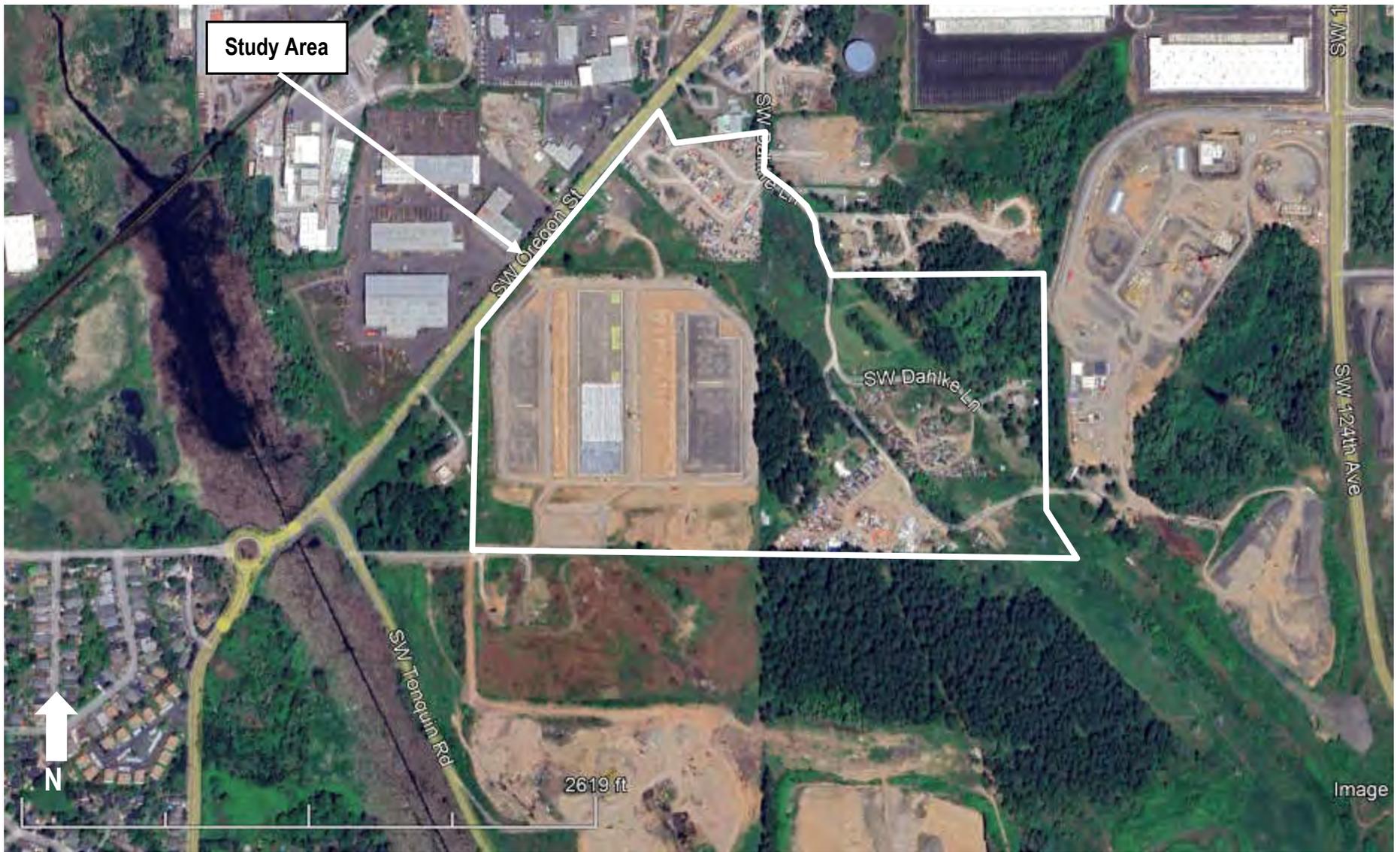
Project #7431
7/10/2023



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Soils
Ice Age Drive - Sherwood, Oregon
Natural Resources Conservation Services, Web Soil Survey, 2019
(websoilsurvey.sc.egov.usda.gov)

FIGURE
4



Project #7431
7/10/2023

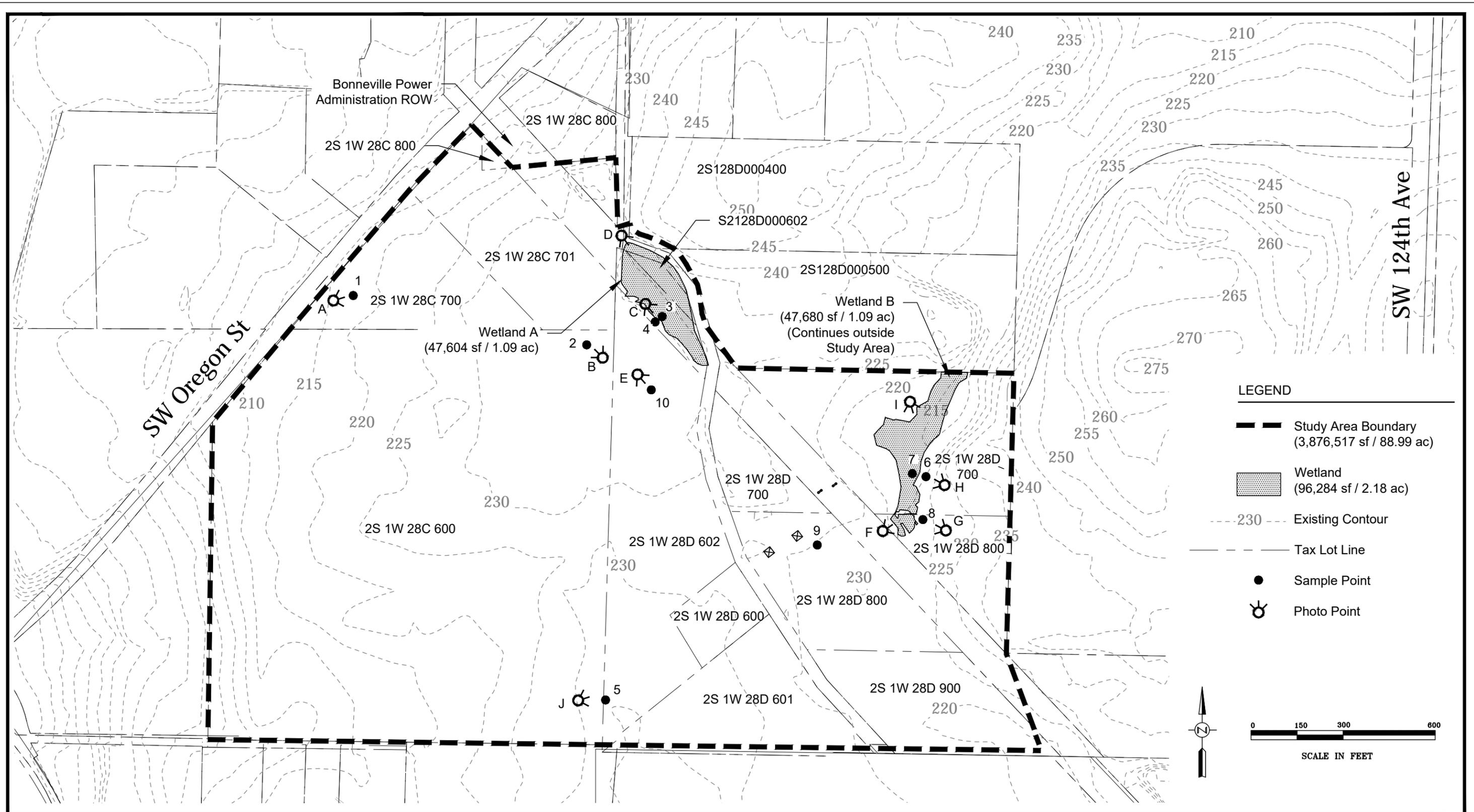


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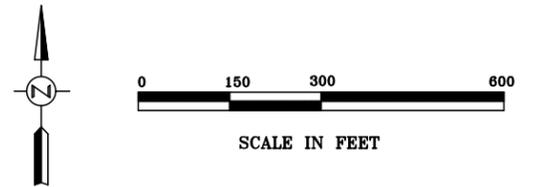
Aerial Photo (May, 2023)
Ice Age Drive - Sherwood, Oregon
GoogleEarth, 2023

FIGURE

5



- LEGEND**
- Study Area Boundary (3,876,517 sf / 88.99 ac)
 - Wetland (96,284 sf / 2.18 ac)
 - Existing Contour
 - Tax Lot Line
 - Sample Point
 - Photo Point



Boundaries and sample points were GPS'ed by PHS and have sub meter accuracy.

Wetland Delineation
 Ice Age Drive - Sherwood, Oregon

FIGURE
6

7-26-2023

Appendix B

Wetland Determination Data Sheets



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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 1
 Investigator(s): TF Section, Township, Range: 28C 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): <3%
 Subregion (LRR): A Lat: 45.364377° Long: -122.818403° Datum: WGS84
 Soil Map Unit Name: Briedwell stony silt loam, 0-7% slopes NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation Soil or Hydrology naturally problematic? 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 <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u> </u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100%</u> (A/B)
1				
2				
3				
4				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u>15</u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1	<u>Rubus armeniacus</u> <u>55</u>	<u>X</u>	<u>FAC</u>	
2	<u>Crataegus monogyna</u> <u>10</u>	<u>X</u>	<u>FAC</u>	
3	<u>Cytisus scoparius</u> <u>2</u>		<u>UPL</u>	
4				
5				
	<u>67</u>	= Total Cover		
Herb Stratum (plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1- Rapid Test for Hydrophytic Vegetation <u> </u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1	<u>Unidentified grass</u> <u>70</u>	<u>X</u>	<u>(FAC)</u>	
2	<u>Agrostis sp</u> <u>20</u>	<u>X</u>	<u>(FAC)</u>	
3	<u>Dactylis glomerata</u> <u>5</u>		<u>FACU</u>	
4	<u>Carex sp</u> <u>5</u>		<u>(FAC)</u>	
5				
6				
7				
8				
	<u>100</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1				
2				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	7.5YR 2.5/3	100					Silt Loam	
10-18	7.5YR 3/3	100					Silty Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>18**
 Saturation Present? Yes _____ No **X** Depth (inches): **>18**
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes _____ No **X**

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 2
 Investigator(s): TF/AS Section, Township, Range: 28C 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 0
 Subregion (LRR): A Lat: 45.364152° Long: -122.816098° Datum: WGS84
 Soil Map Unit Name: Laurelwood silt loam, 3 to 7 percent slopes NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation Soil or Hydrology naturally problematic? 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 <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>2</u> (A)	
2				Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3				Percent of Dominant Species	
4				That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
5	<u>0</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>15</u>)				Total % Cover of	
1	<u>2</u>		<u>UPL</u>	Multiply by:	
2				OBL Species	x 1 = <u>0</u>
3				FACW species	x 2 = <u>0</u>
4				FAC Species	x 3 = <u>0</u>
5				FACU Species	x 4 = <u>0</u>
	<u>2</u>	= Total Cover		UPL Species	x 5 = <u>0</u>
Herb Stratum (plot size: <u>5</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1	<u>40</u>	<u>X</u>	<u>(FAC)</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2	<u>30</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3	<u>10</u>		<u>FACU</u>	<u> </u> 1- Rapid Test for Hydrophytic Vegetation	
4	<u>10</u>		<u>UPL</u>	<u>X</u> 2- Dominance Test is >50%	
5	<u>5</u>		<u>FACU</u>	<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
6	<u>2</u>		<u>FACU</u>	<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
7				<u> </u> 5- Wetland Non-Vascular Plants ¹	
8				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
	<u>97</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present?	
1				Yes <u>X</u>	No <u> </u>
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>5</u>					

Remarks:

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	7.5YR 2.5/3	100					Silt Loam	
10-16	7.5YR 3/4	100					Silty Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>16**
 Saturation Present? Yes _____ No **X** Depth (inches): **>16**
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No **X**

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 3
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): <5%
 Subregion (LRR): A Lat: 45.364493° Long: -122.815260° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: PSS
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation Soil or Hydrology naturally problematic? 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 <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u> </u>)				Number of Dominant Species	
1				That are OBL, FACW, or FAC: <u>2</u> (A)	
2				Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3				Percent of Dominant Species	
4				That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
	<u>0</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>15</u>)				Total % Cover of <u> </u> Multiply by: <u> </u>	
1	<u>60</u>	<u>X</u>	<u>(FAC)</u>	OBL Species	x 1 = <u>0</u>
2	<u>10</u>		<u>FAC</u>	FACW species	x 2 = <u>0</u>
3	<u>10</u>		<u>FACU</u>	FAC Species	x 3 = <u>0</u>
4				FACU Species	x 4 = <u>0</u>
5				UPL Species	x 5 = <u>0</u>
	<u>80</u>	= Total Cover		Column Totals	<u>0</u> (A) <u>0</u> (B)
Herb Stratum (plot size: <u>5</u>)				Prevalence Index =B/A = <u>#DIV/0!</u>	
1	<u>20</u>	<u>X</u>	<u>(FAC)</u>	Hydrophytic Vegetation Indicators:	
2				<u>X</u> 1- Rapid Test for Hydrophytic Vegetation	
3				<u> </u> 2- Dominance Test is >50%	
4				<u> </u> 3-Prevalence Index is ≤ 3.0 ¹	
5				<u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6				<u> </u> 5- Wetland Non-Vascular Plants ¹	
7				<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
8	<u>20</u>	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (plot size: <u> </u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
1					
2					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>80</u>					

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 4
 Investigator(s): AS/TF Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.364386° Long: -122.815392° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	Is Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: <u>30</u>)			
1 <u>Arbutus menziesii</u>	<u>20</u>	<u>X</u>	<u>(UPL)</u>
2 <u>Pseudotsuga menziesii</u>	<u>15</u>	<u>X</u>	<u>FACU</u>
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>35</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>15</u>)			
1 <u>Corylus cornuta</u>	<u>30</u>	<u>X</u>	<u>FACU</u>
2 <u>Holodiscus discolor</u>	<u>20</u>	_____	<u>FACU</u>
3 <u>Symphoricarpos albus</u>	<u>20</u>	_____	<u>FACU</u>
4 <u>Rubus armeniacus</u>	<u>15</u>	_____	<u>FAC</u>
5 <u>Crataegus monogyna</u>	<u>10</u>	_____	<u>FAC</u>
	<u>95</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Unidentified grass</u>	<u>15</u>	<u>X</u>	<u>(FAC)</u>
2 <u>Fragaria x ananassa</u>	<u>5</u>	<u>X</u>	<u>(UPL)</u>
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
	<u>20</u>	= Total Cover	
Woody Vine Stratum (plot size: <u>15</u>)			
1 <u>Toxicodendron diversilobum</u>	<u>10</u>	<u>X</u>	<u>FAC</u>
2 _____	_____	_____	_____
	<u>10</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>80</u>		

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

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

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- _____ 1- Rapid Test for Hydrophytic Vegetation
- _____ 2- Dominance Test is >50%
- _____ 3-Prevalence Index is ≤ 3.0¹
- _____ 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- _____ 5- Wetland Non-Vascular Plants¹
- _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
Shrubs continued: Rosa sp (FAC) 10%. Pseudotsuga menziesii, Arbutus menziesii and Oemleria cerisiformis also in vegetated corridor.

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	7.5YR 2.5/3	80					Silt Loam	Mixed matrix
0-10	7.5YR 3/3	20					Silt Loam	Mixed matrix
10-16	7.5YR 4/4	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >16
 Saturation Present? Yes _____ No X Depth (inches): >16
 (includes capillary fringe)

Wetland Hydrology Present?

Yes _____ No X

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

200% of normal rainfall.

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 5
 Investigator(s): TF Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): A Lat: 45.361283° Long: -122.815638° Datum: WGS84
 Soil Map Unit Name: Laurelwood silt loam, 3 to 7 percent slopes NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes No X (if no, explain in Remarks)
 Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation Soil or Hydrology naturally problematic? 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 <u>X</u>	No <u> </u>	Is Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	
Tree Stratum (plot size: <u> </u>)				Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That are OBL, FACW, or FAC: <u>100%</u> (A/B)
1				
2				
3				
4				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (plot size: <u> </u>)				Prevalence Index Worksheet: Total % Cover of <u> </u> Multiply by: <u> </u> OBL Species <u> </u> x 1 = <u>0</u> FACW species <u> </u> x 2 = <u>0</u> FAC Species <u> </u> x 3 = <u>0</u> FACU Species <u> </u> x 4 = <u>0</u> UPL Species <u> </u> x 5 = <u>0</u> Column Totals <u>0</u> (A) <u>0</u> (B) Prevalence Index =B/A = <u>#DIV/0!</u>
1				
2				
3				
4				
5				
	<u>0</u>	= Total Cover		
Herb Stratum (plot size: <u>5</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1- Rapid Test for Hydrophytic Vegetation <u> </u> 2- Dominance Test is >50% <u> </u> 3-Prevalence Index is ≤ 3.0 ¹ <u> </u> 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet) <u> </u> 5- Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
1	<u>95</u>	<u>X</u>	<u>(FAC)</u>	
2	<u>5</u>		<u>(FAC)</u>	
3	<u>3</u>		<u>FACU</u>	
4	<u>2</u>		<u>FACU</u>	
5				
6				
7				
8				
	<u>105</u>	= Total Cover		
Woody Vine Stratum (plot size: <u> </u>)				
1				
2				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	7.5YR 2.5/2	100					Silt Loam	
4-18	7.5YR 2.5/3	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No **X** Depth (inches): **>18**
 Saturation Present? Yes _____ No **X** Depth (inches): **>18**
 (includes capillary fringe)

Wetland Hydrology Present?

Yes _____ No **X**

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 6
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.363001° Long: -122.811378° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u><i>Pseudotsuga menziesii</i></u>	<u>40</u>	<u>X</u>	<u>FACU</u>	That are OBL, FACW, or FAC:	<u>1</u> (A)
2 <u><i>Quercus garryana</i></u>	<u>5</u>		<u>FACU</u>	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3 _____				Percent of Dominant Species	
4 _____				That are OBL, FACW, or FAC:	<u>25%</u> (A/B)
	<u>45</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>15</u>)				Total % Cover of _____ Multiply by: _____	
1 <u><i>Symphoricarpos albus</i></u>	<u>50</u>	<u>X</u>	<u>FACU</u>	OBL Species _____	x 1 = <u>0</u>
2 <u><i>Rubus armeniacus</i></u>	<u>10</u>		<u>FAC</u>	FACW species _____	x 2 = <u>0</u>
3 <u><i>Corylus cornuta</i></u>	<u>5</u>		<u>FACU</u>	FAC Species _____	x 3 = <u>0</u>
4 _____				FACU Species _____	x 4 = <u>0</u>
5 _____				UPL Species _____	x 5 = <u>0</u>
	<u>65</u>	= Total Cover		Column Totals	<u>0</u> (A) <u>0</u> (B)
Herb Stratum (plot size: <u>5</u>)				Prevalence Index =B/A = <u>#DIV/0!</u>	
1 <u>Unidentified grass</u>	<u>40</u>	<u>X</u>	<u>(FAC)</u>	Hydrophytic Vegetation Indicators:	
2 <u><i>Geranium molle</i></u>	<u>40</u>	<u>X</u>	<u>(UPL)</u>	_____ 1- Rapid Test for Hydrophytic Vegetation	
3 <u><i>Rubus ursinus</i></u>	<u>15</u>		<u>FACU</u>	_____ 2- Dominance Test is >50%	
4 <u><i>Leucaena leucocephala</i></u>	<u>10</u>		<u>(UPL)</u>	_____ 3-Prevalence Index is ≤ 3.0 ¹	
5 <u><i>Lapsana communis</i></u>	<u>5</u>		<u>FACU</u>	_____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6 <u><i>Rumex crispus</i></u>	<u>5</u>		<u>FAC</u>	_____ 5- Wetland Non-Vascular Plants ¹	
7 _____				_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
8 _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	<u>115</u>	= Total Cover		Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	
Woody Vine Stratum (plot size: _____)					
1 _____					
2 _____					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					

Remarks:
Arbutus menziesii, Holodiscus discolor, Crataegus sp, Oemleria cerisaformis and Toxicodendron diversilobum also in vegetated corridor.

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	7.5YR 2.5/2	100					Silt Loam	
8-12	7.5YR 2.5/2	50					Silt Loam	Mixed matrix
8-12	5YR 3/4	50					Silt Loam	Mixed matrix
12-18	5YR 3/4	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes _____ No **X** Depth (inches): _____
 Water Table Present? Yes _____ No _____ Depth (inches): **15**
 Saturation Present? Yes _____ No _____ Depth (inches): **13**
 (includes capillary fringe)

Wetland Hydrology Present?

Yes _____ No **X**

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 7
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.363055° Long: -122.811413° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: PFO
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	No _____	Is Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: <u>30</u>)				Number of Dominant Species	
1 <u>Fraxinus latifolia</u>	<u>55</u>	<u>X</u>	<u>FACW</u>	That are OBL, FACW, or FAC:	<u>3</u> (A)
2 _____				Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3 _____				Percent of Dominant Species	
4 _____				That are OBL, FACW, or FAC:	<u>75%</u> (A/B)
	<u>55</u>	= Total Cover		Prevalence Index Worksheet:	
Sapling/Shrub Stratum (plot size: <u>15</u>)				Total % Cover of _____ Multiply by: _____	
1 <u>Rubus armeniacus</u>	<u>2</u>		<u>FAC</u>	OBL Species _____	x 1 = <u>0</u>
2 <u>Symphoricarpos albus</u>	<u>2</u>		<u>FACU</u>	FACW species _____	x 2 = <u>0</u>
3 _____				FAC Species _____	x 3 = <u>0</u>
4 _____				FACU Species _____	x 4 = <u>0</u>
5 _____				UPL Species _____	x 5 = <u>0</u>
	<u>4</u>	= Total Cover		Column Totals	<u>0</u> (A) <u>0</u> (B)
Herb Stratum (plot size: <u>5</u>)				Prevalence Index =B/A = <u>#DIV/0!</u>	
1 <u>Geranium molle</u>	<u>30</u>	<u>X</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators:	
2 <u>Ranunculus repens</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	_____ 1- Rapid Test for Hydrophytic Vegetation	
3 <u>Unidentified grass</u>	<u>20</u>	<u>X</u>	<u>(FAC)</u>	<u>X</u> 2- Dominance Test is >50%	
4 <u>Rumex crispus</u>	<u>5</u>		<u>FAC</u>	_____ 3-Prevalence Index is ≤ 3.0 ¹	
5 <u>Ranunculus occidentalis</u>	<u>5</u>		<u>FACW</u>	_____ 4-Morphological Adaptations ¹ (provide supporting data in Remarks or on a separate sheet)	
6 _____				_____ 5- Wetland Non-Vascular Plants ¹	
7 _____				_____ Problematic Hydrophytic Vegetation ¹ (Explain)	
8 _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
	<u>80</u>	= Total Cover		Hydrophytic Vegetation Present?	
Woody Vine Stratum (plot size: _____)				Yes <u>X</u> No _____	
1 _____					
2 _____					
	<u>0</u>	= Total Cover			
% Bare Ground in Herb Stratum <u>20</u>					

Remarks:

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	7.5YR 2.5/2	90	5YR 3/4	10	C	M	Silt Loam	Fine
7-12	7.5YR 3/4	60					Silt Loam	
7-12	7.5YR 2.5/2	40					Silt Loam	
12-16	7.5YR 3/4	100					Silt Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

³Indicators 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

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

Secondary Indicators (2 or more required)

<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches): _____
 Water Table Present? Yes No Depth (inches): 3
 Saturation Present? Yes No Depth (inches): Surface
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 8
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.362654° Long: -122.811995° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	Is Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>	
Wetland Hydrology Present? Yes _____ No <u>X</u>	

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: <u>30</u>)			
1 <u>Arbutus menziesii</u>	<u>40</u>	<u>X</u>	<u>UPL</u>
2 <u>Pseudotsuga menziesii</u>	<u>35</u>	<u>X</u>	<u>FACU</u>
3 <u>Quercus garryana</u>	<u>15</u>		<u>FACU</u>
4 _____			
	<u>90</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>15</u>)			
1 <u>Mahonia nervosa</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
2 <u>Rubus armeniacus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
3 _____			
4 _____			
5 _____			
	<u>15</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Geranium molle</u>	<u>40</u>	<u>X</u>	<u>UPL</u>
2 <u>Holcus lanatus</u>	<u>30</u>	<u>X</u>	<u>FAC</u>
3 <u>Unidentified grass</u>	<u>20</u>		<u>(FAC)</u>
4 <u>Dactylis glomerata</u>	<u>15</u>		<u>FACU</u>
5 <u>Schedonorus arundinaceus</u>	<u>5</u>		<u>FAC</u>
6 _____			
7 _____			
8 _____			
	<u>110</u>	= Total Cover	
Woody Vine Stratum (plot size: <u>5</u>)			
1 <u>Toxicodendron diversilobum</u>	<u>2</u>		<u>FAC</u>
2 _____			
	<u>2</u>	= Total Cover	
% Bare Ground in Herb Stratum <u>0</u>			

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 6 (B)

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

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species	x 1 =	<u>0</u>
FACW species	x 2 =	<u>0</u>
FAC Species	x 3 =	<u>0</u>
FACU Species	x 4 =	<u>0</u>
UPL Species	x 5 =	<u>0</u>
Column Totals	<u>0</u> (A)	<u>0</u> (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

- _____ 1- Rapid Test for Hydrophytic Vegetation
- _____ 2- Dominance Test is >50%
- _____ 3-Prevalence Index is ≤ 3.0¹
- _____ 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
- _____ 5- Wetland Non-Vascular Plants¹
- _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	7.5YR 2.5/2	100					Silt Loam	
6-15	7.5YR 2.5/3	100					Silt Loam	Some gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

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

Indicators for Problematic Hydric Soils³:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

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

Restrictive Layer (if present):

Type: Rock
 Depth (inches): 15

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches):
 Water Table Present? Yes No Depth (inches): >15
 Saturation Present? Yes No Depth (inches): >15
 (includes capillary fringe)

Wetland Hydrology Present?
 Yes No

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

Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 9
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.362255° Long: -122.813343° Datum: WGS84
 Soil Map Unit Name: Xerochrepts-Rock outcrop complex NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	No _____	Is Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
Tree Stratum (plot size: _____)				Number of Dominant Species	
1 _____	_____	_____	_____	That are OBL, FACW, or FAC: <u>3</u> (A)	
2 _____	_____	_____	_____	Total Number of Dominant	
3 _____	_____	_____	_____	Species Across All Strata: <u>3</u> (B)	
4 _____	_____	_____	_____	Percent of Dominant Species	
	<u>0</u>	= Total Cover		That are OBL, FACW, or FAC: <u>100%</u> (A/B)	
Sapling/Shrub Stratum (plot size: _____)				Prevalence Index Worksheet:	
1 _____	_____	_____	_____	Total % Cover of _____ Multiply by: _____	
2 _____	_____	_____	_____	OBL Species _____ x 1 = <u>0</u>	
3 _____	_____	_____	_____	FACW species _____ x 2 = <u>0</u>	
4 _____	_____	_____	_____	FAC Species _____ x 3 = <u>0</u>	
5 _____	_____	_____	_____	FACU Species _____ x 4 = <u>0</u>	
	<u>0</u>	= Total Cover		UPL Species _____ x 5 = <u>0</u>	
Herb Stratum (plot size: <u>5</u>)				Column Totals <u>0</u> (A) <u>0</u> (B)	
1 <u>Echinochloa crus-galli</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	Prevalence Index =B/A = <u>#DIV/0!</u>	
2 <u>Poa species</u>	<u>5</u>	<u>X</u>	<u>(FAC)</u>		
3 <u>Rumex crispus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>		
4 _____	_____	_____	_____		
5 _____	_____	_____	_____		
6 _____	_____	_____	_____		
7 _____	_____	_____	_____		
8 _____	_____	_____	_____		
	<u>15</u>	= Total Cover			
Woody Vine Stratum (plot size: _____)				Hydrophytic Vegetation Indicators:	
1 _____	_____	_____	_____	_____ 1- Rapid Test for Hydrophytic Vegetation	
2 _____	_____	_____	_____	<u>X</u> 2- Dominance Test is >50%	
	<u>0</u>	= Total Cover		_____ 3-Prevalence Index is ≤ 3.0 ¹	
% Bare Ground in Herb Stratum <u>85</u>				_____ 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)	

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

Remarks:

Hydrophytic Vegetation Present? Yes X No _____

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100						
3-10	10YR 3/1	50	10YR 4/6	2	C	M		Fine
	10YR 3/2	50						

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

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

Restrictive Layer (if present):

Type: Fill/gravel

Depth (inches): 10

Hydric Soil Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water stained Leaves (B9) (Except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Fac-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present? Yes No Depth (inches):

Water Table Present? Yes No Depth (inches): >10

Saturation Present? Yes No Depth (inches): >10

(includes capillary fringe)

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Precipitation data from SHERWOOD 0.6 SW, OR shows an accumulation of 5.72 inches -- a level of rainfall that exceeds that of the observed precipitation for the month of April since 1953 (except for 1993).

Remarks:

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

Project/Site: Ice Age Drive City/County: Sherwood/Washington Sampling Date: 4/14/2023
 Applicant/Owner: City of Sherwood State: OR Sampling Point: 10
 Investigator(s): TF/AS Section, Township, Range: 28D 2S 1W
 Landform (hillslope, terrace, etc.): Slope Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR): A Lat: 45.363605° Long: -122.815500° Datum: WGS84
 Soil Map Unit Name: Laurelwood silt loam, 3 to 7 percent slopes NWI Classification: None
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes _____ No X (if no, explain in Remarks)
 Are vegetation _____ Soil _____ or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? (Y/N) N
 Are vegetation _____ Soil _____ or Hydrology _____ naturally problematic? 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 <u>X</u>	No _____	Is Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Remarks:
The DAREM analysis for the 3 months prior to field work resulted in Normal conditions. At 5.72 inches however, rainfall over the two weeks prior to field work was significantly above normal (see report Section C). As such, site conditions were assumed wetter than normal.

VEGETATION - Use scientific names of plants.

	absolute % cover	Dominant Species?	Indicator Status
Tree Stratum (plot size: _____)			
1 _____	_____	_____	_____
2 _____	_____	_____	_____
3 _____	_____	_____	_____
4 _____	_____	_____	_____
	<u>0</u>	= Total Cover	
Sapling/Shrub Stratum (plot size: <u>15</u>)			
1 <u>Rubus armeniacus</u>	<u>30</u>	<u>X</u>	<u>FAC</u>
2 <u>Corylus cornuta</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
3 _____	_____	_____	_____
4 _____	_____	_____	_____
5 _____	_____	_____	_____
	<u>40</u>	= Total Cover	
Herb Stratum (plot size: <u>5</u>)			
1 <u>Agrostis sp</u>	<u>70</u>	<u>X</u>	<u>(FAC)</u>
2 <u>Fragaria x ananassa</u>	<u>15</u>	_____	<u>(UPL)</u>
3 <u>Schedonorus arundinaceus</u>	<u>10</u>	_____	<u>FAC</u>
4 <u>Plantago lanceolata</u>	<u>3</u>	_____	<u>FACU</u>
5 <u>Hypericum perforatum</u>	<u>2</u>	_____	<u>FACU</u>
6 _____	_____	_____	_____
7 _____	_____	_____	_____
8 _____	_____	_____	_____
	<u>100</u>	= Total Cover	
Woody Vine Stratum (plot size: <u>5</u>)			
1 <u>Toxicodendron diversilobum</u>	<u>5</u>	<u>X</u>	<u>FAC</u>
2 _____	_____	_____	_____
	<u>5</u>	= Total Cover	
% Bare Ground in Herb Stratum	<u>0</u>		

Dominance Test worksheet:

Number of Dominant Species
 That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species
 That are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index Worksheet:

Total % Cover of	Multiply by:	
OBL Species _____	x 1 =	<u>0</u>
FACW species _____	x 2 =	<u>0</u>
FAC Species _____	x 3 =	<u>0</u>
FACU Species _____	x 4 =	<u>0</u>
UPL Species _____	x 5 =	<u>0</u>
Column Totals <u>0</u> (A)		<u>0</u> (B)

Prevalence Index =B/A = #DIV/0!

Hydrophytic Vegetation Indicators:

_____ 1- Rapid Test for Hydrophytic Vegetation
X 2- Dominance Test is >50%
 _____ 3-Prevalence Index is ≤ 3.0¹
 _____ 4-Morphological Adaptations¹ (provide supporting data in Remarks or on a separate sheet)
 _____ 5- Wetland Non-Vascular Plants¹
 _____ Problematic Hydrophytic Vegetation¹ (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

Appendix C

Site Photos





Photo A:

Sample Point 1 near the northwest study area boundary. Photo shows characteristic upland vegetation west of the industrial/equipment storage area at the northern part of the study area.

Photo B:

Sample Point 2 located within the BPA corridor south of the north end industrial area.



Project # 7431
Date 07/11/23



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Ice Age Drive Extension Project - Sherwood, Oregon

Photos taken April 14, 2023



Photo C:

Sample Points 3 & 4 along the western boundary of Wetland A.

Photo D:

Depiction of hydrologic conditions found throughout Wetland A at the time of the site visit. Photo was taken from the northern-most boundary.



Project # 7431
Date 07/11/23



Pacific Habitat Services, Inc.
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Wilsonville, OR 97070

Photo documentation

Ice Age Drive Extension Project - Sherwood, Oregon

Photos taken April 14, 2023



Photo E:

Sample Point 10 located southeast of Sample Point 2, both of which are in the BPA corridor.

Photo F:

View of the south end of Wetland B as seen from a road within the BPA right-of-way.



Project # 7431
Date 07/11/23



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Ice Age Drive Extension Project - Sherwood, Oregon

Photos taken April 14, 2023



Photo G:

Sample Point 8; facing southwest towards the pond at the southern tip of Wetland B.

Photo H:

Sample Point 6 (the pink flag), with Wetland B beyond.



Project # 7431
Date 07/11/23



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Ice Age Drive Extension Project - Sherwood, Oregon

Photos taken April 14, 2023



Photo I:

Facing southeast towards the interior of Wetland B from the middle of the western boundary.

Photo J:

Vicinity of Sample Point 5; taken near the middle of southern border of study area adjacent to an onsite residence. (Photo taken prior to data collection and placement of flag.)



Project # 7431
Date 07/11/23



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

Photo documentation

Ice Age Drive Extension Project - Sherwood, Oregon

Photos taken April 14, 2023

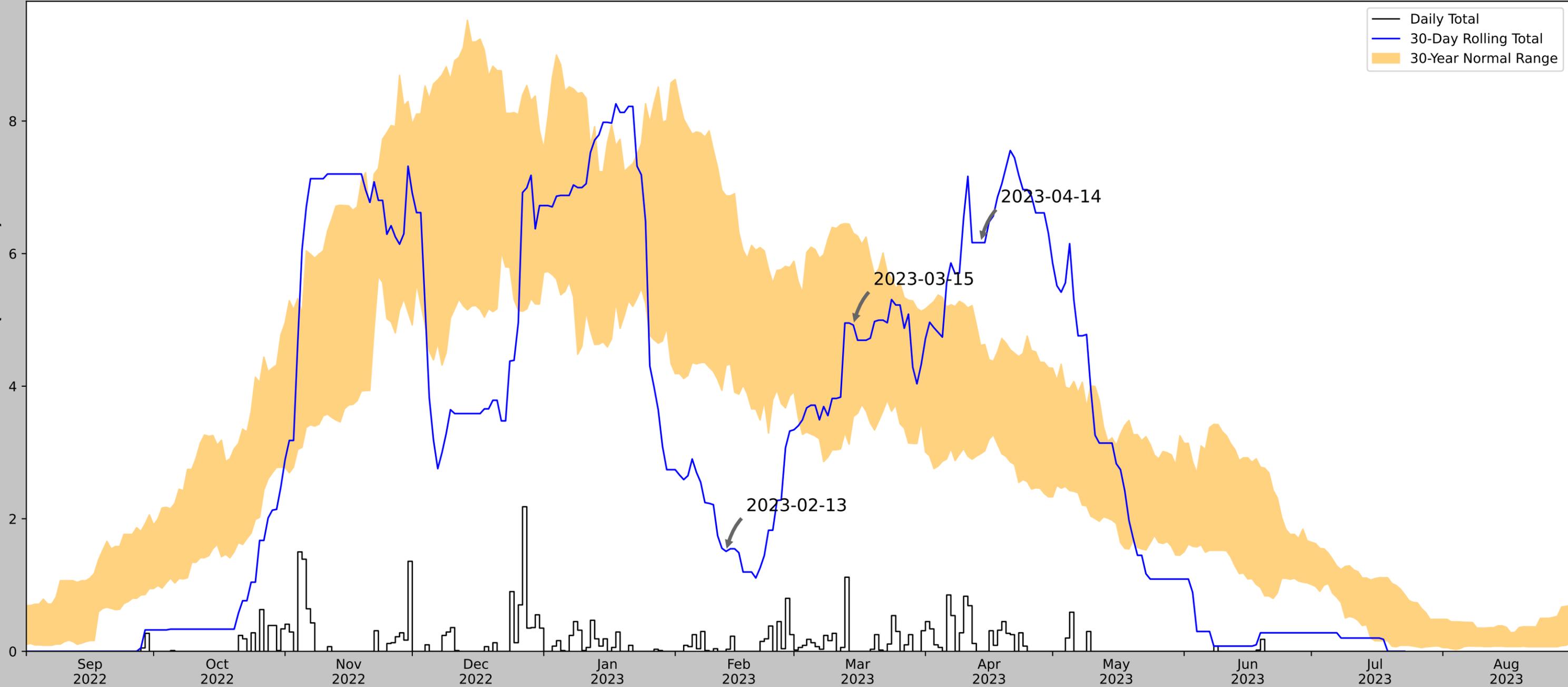
Appendix D

Antecedent Precipitation Tool (APT) Results



Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	45.362725, -122.813247
Observation Date	2023-04-14
Elevation (ft)	229.687
Drought Index (PDSI)	Mild wetness
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-04-14	2.979528	4.615748	6.165355	Wet	3	3	9
2023-03-15	3.540945	6.306693	4.92126	Normal	2	2	4
2023-02-13	4.312599	6.871654	1.507874	Dry	1	1	1
Result							Normal Conditions - 14



Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
REX 1 S	45.3033, -122.9133	515.092	6.362	285.405	4.679	11287	90
NEWBERG 0.3 N	45.3102, -122.9608	207.021	2.357	308.071	1.787	8	0
DUNDEE 1.0 NNW	45.2905, -123.01	454.068	4.782	61.024	2.444	1	0
SHERWOOD 2.0 NW	45.38, -122.8716	285.105	5.673	229.987	3.858	1	0
TIGARD 3.2 W	45.4185, -122.8392	479.003	8.735	36.089	4.246	4	0
AURORA STATE AP	45.2467, -122.7708	195.866	7.956	319.226	6.12	31	0
N WILLAMETTE EXP STN	45.2817, -122.7517	149.934	7.995	365.158	6.517	18	0
BEAVERTON 2 SSW	45.4547, -122.8203	270.013	11.393	245.079	7.919	3	0

Appendix E

Offsite Delineation Concurrence Letters





Oregon

Kate Brown, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregon.gov/dsl

State Land Board

March 11, 2020

Trammel Crow Company

Attn: Kirk Olsen

1300 SW Fifth Avenue, Suite 3050

Portland, OR 97201

Kate Brown

Governor

Re: WD # 2020-0015 **Approved**
Wetland Delineation Report for the T-S Corporate Park
Washington County; T2S R1W S28D TL1100 (Portion)

Bev Clarno

Secretary of State

Tobias Read

State Treasurer

Dear Mr. Olsen:

The Department of State Lands has reviewed the wetland delineation report prepared by Pacific Habitat Services for the site referenced above. Please note that the study area includes only a portion of the tax lot described above (see the attached maps). Based upon the information presented in the report, and additional information submitted upon request, we concur with the wetland and waterway boundaries as mapped in revised Figure 6, 6A, and 6B of the report. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the study area, 3 wetlands (Wetland A, B and C, totaling approximately 2.91 acres) and one roadside ditch were identified. The wetlands are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands or below the ordinary high-water line (OHWL) of the waterway (or the 2-year recurrence interval flood elevation if OHWL cannot be determined). The roadside ditch is exempt per OAR 141-085-0515(10) except for the area that may be contiguous with Wetland A offsite.

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

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

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

Thank you for having the site evaluated. If you have any questions, please contact Chris Stevenson, the Jurisdictional Coordinator for Clackamas County at (503) 986-5246.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Ryan".

Peter Ryan, PWS
Aquatic Resource Specialist

Enclosures

ec: Shawn Eisner, Pacific Habitat Services
City of Sherwood Planning Department
Carrie Bond, Corps of Engineers
Anita Huffman, DSL
Lindsey Obermiller, Clean Water Services

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

Fully completed and signed report cover forms and applicable fees are required before report review timelines are initiated by the Department of State Lands. Make the checks payable to the Oregon Department of State Lands. To pay fees by credit card, go online at: <https://apps.oregon.gov/DSL/EPS/program?key=4>.

Attach this completed and signed form to the front of an unbound report or include a hard copy with a digital version (single PDF file of the report cover form and report, minimum 300 dpi resolution) and submit to, **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279**. A single PDF of the completed cover form and report may be e-mailed to **Wetland_Delineation@dsl.state.or.us**. For submittal of PDF files larger than 10 MB, e-mail DSL instructions on how to access the file from your ftp or other file sharing website.

Contact and Authorization Information

<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Trammel Crow Company Attn: Kirk Olsen 1300 SW Fifth Avenue, Suite 3050 Portland, OR 97201	Business phone # 503-946-4981 Mobile phone # (optional) E-mail: KOlsen@trammellcrow.com
--	---

<input type="checkbox"/> Authorized Legal Agent, Name and Address:	Business phone # Mobile phone # E-mail:
--	---

I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.
 Typed/Printed Name: Kirk L. Olsen Signature: Kirk L. Olsen
 Date: 1/7/20 Special instructions regarding site access:

Project and Site Information

Project Name: T-S Corporate Park	Latitude: 45.3682° N	Longitude: -122.8103° W
	decimal degree - centroid of site or start & end points of linear project	
	Tax Map # 2S128D	
	Tax Lot(s) 1100 (portion)	
Proposed Use: Light Industrial	Tax Map # Tax Lot(s)	
Project Street Address (or other descriptive location): 12900 SW Tualatin-Sherwood Road, North portion of tax lot	Township 2S	Range 1W
	Section 28	QQ SE 1/4
City: Sherwood County: Washington	Waterway: NA	River Mile: n/a
	NWI Quad(s): Sherwood	

Wetland Delineation Information

Wetland Consultant Name, Firm and Address: Pacific Habitat Services Attn: Shawn Eisner 9450 SW Commerce Circle, Suite 180 Wilsonville, OR 97070	Phone # 503-570-0800 Mobile phone # E-mail: se@pacifichabitat.com
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge. Consultant Signature: <u><i>Shawn Eisner</i></u> Date: <u>1/3/20</u>	

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

Wetland/Waters Present? Yes No Study Area size: **44 acre** Wetland Acreage: **2.94 ac** Waters Acreage: **0 ac**

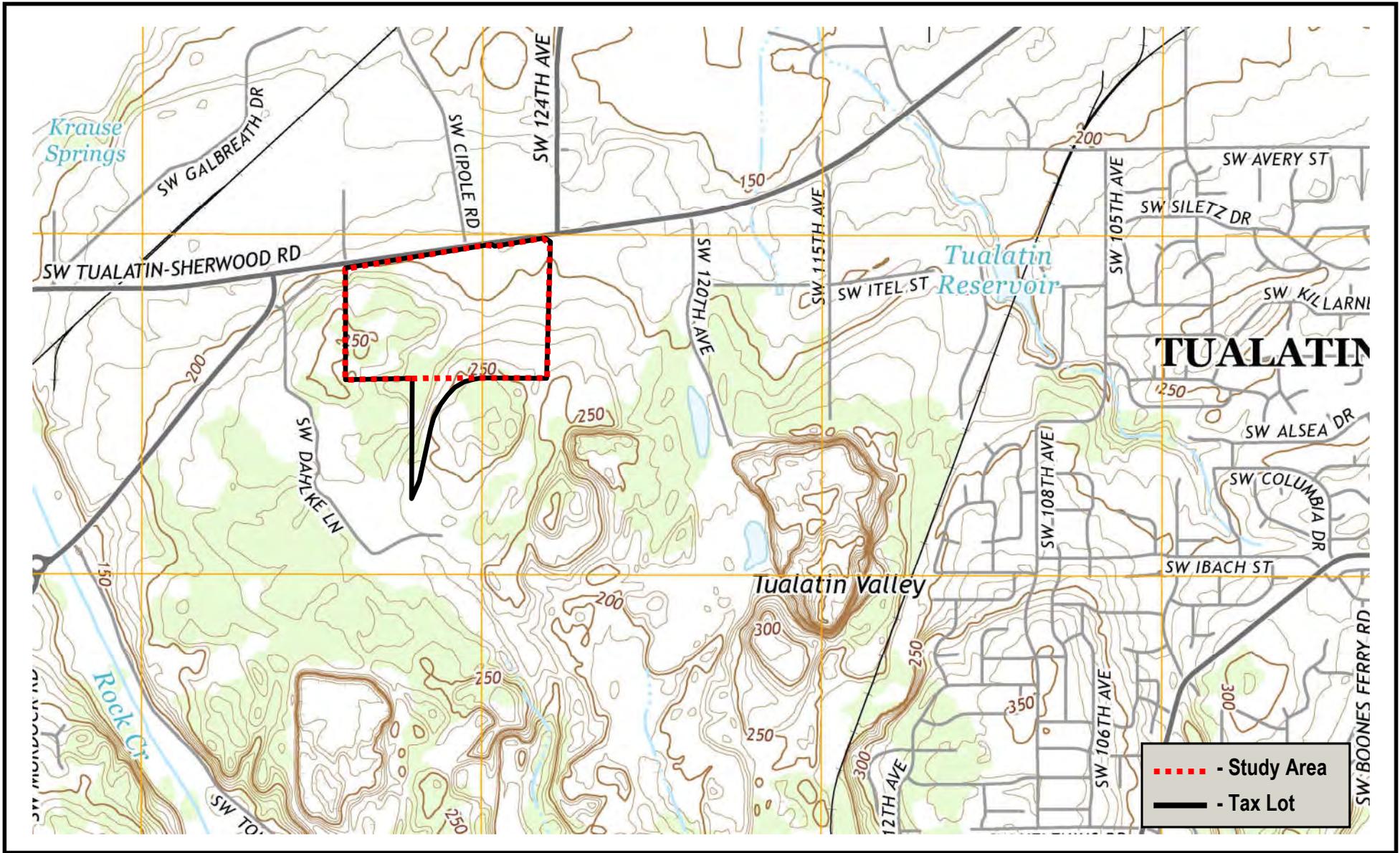
Check Applicable Boxes Below

<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> Industrial Land Certification Program Site <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input checked="" type="checkbox"/> Previous delineation/application on parcel? If Known, previous DSL # 2014-0448, 2017-0006 & 0008	<input type="checkbox"/> Fee payment submitted \$466 <input type="checkbox"/> Fee (\$100) for resubmittal of rejected report <input type="checkbox"/> Request for Reissuance. See eligibility criteria (no fee) DSL # _____ Expiration Date _____ <input type="checkbox"/> LWI shows wetlands or waters on parcel? Wetland ID Code _____
--	--

For Office Use Only

DSL Reviewer: <u>C.S.</u>	Fee Paid Date: ___ / ___ / ___	DSL WD # <u>2020-0015</u>
Date Delineation Received: <u>1 / 9 / 20</u>	Scanned: <input checked="" type="checkbox"/> Final Scan: <input type="checkbox"/>	DSL App. # _____

Proj #79274



#6163
12/19/2019

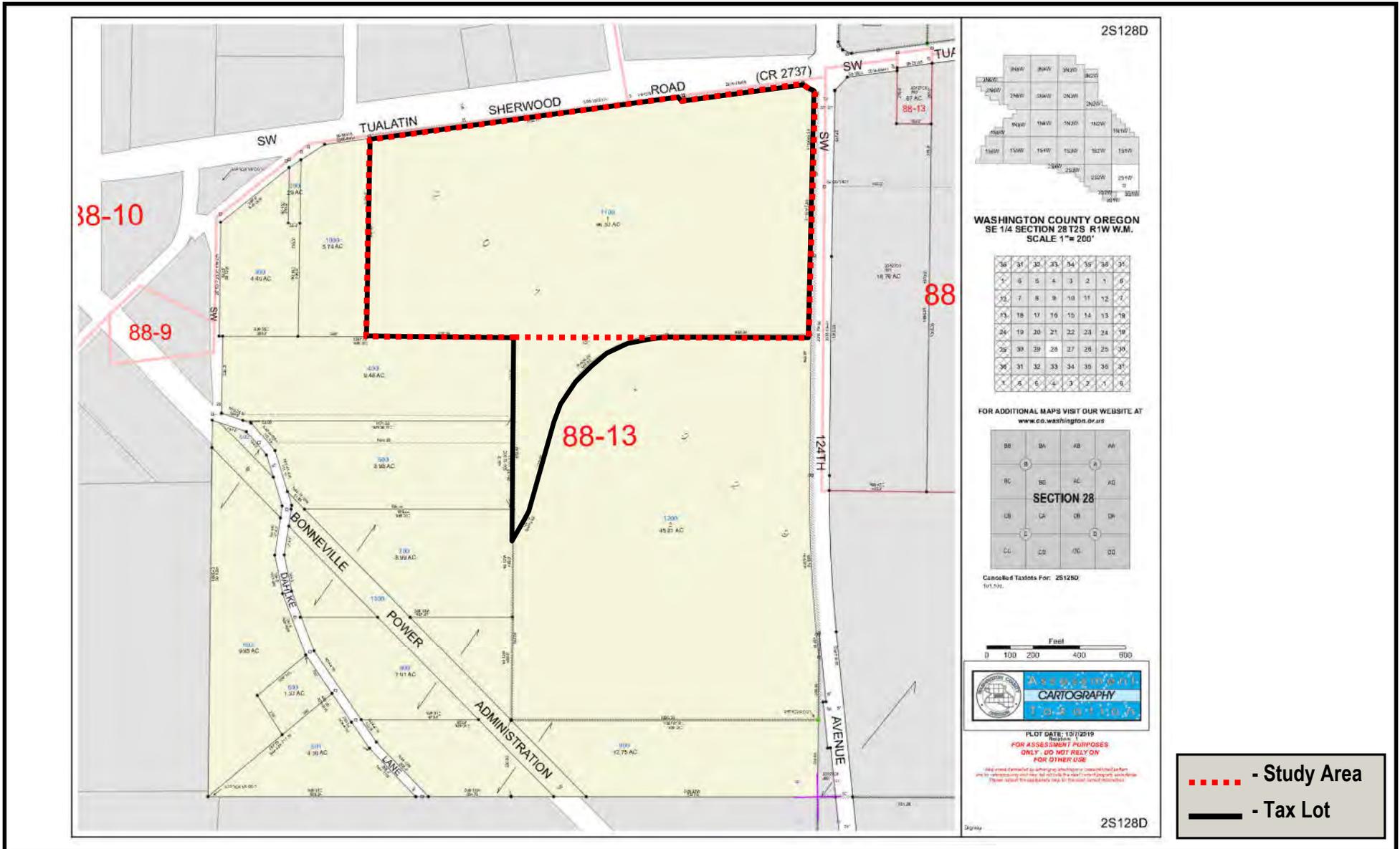


Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

General Location and Topography
T-S Corporate Park—Sherwood, Oregon
United States Geological Survey (USGS), Sherwood, Oregon, 7.5 Quadrangle, 2014
(viewer/nationalmap.gov/basic)

FIGURE

1



WASHINGTON COUNTY OREGON
SE 1/4 SECTION 28 T2S R1W W.M.
SCALE 1"= 200'

36	31	30	33	34	35	36	31
6	5	4	3	2	1	6	
7	8	9	10	11	12	7	
13	18	17	16	15	14	13	18
19	20	21	22	23	24	19	
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31
A	B	C	D	E	F	G	H

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT
www.co.washington.or.us

BB	BA	AB	AA
B	B	A	A
BC	BD	AC	AD
CB	CA	DB	DA
CC	CD	DC	DD

SECTION 28

Canoeed Taxlots For: 25 1280
101-001



PLOT DATE: 12/1/2019
FOR ASSESSMENT PURPOSES
ONLY - DO NOT RELY ON
FOR OTHER USE

- - - - - - Study Area
- - Tax Lot

2S128D

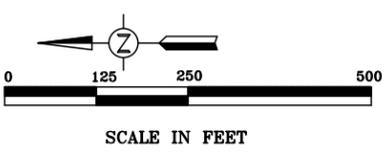
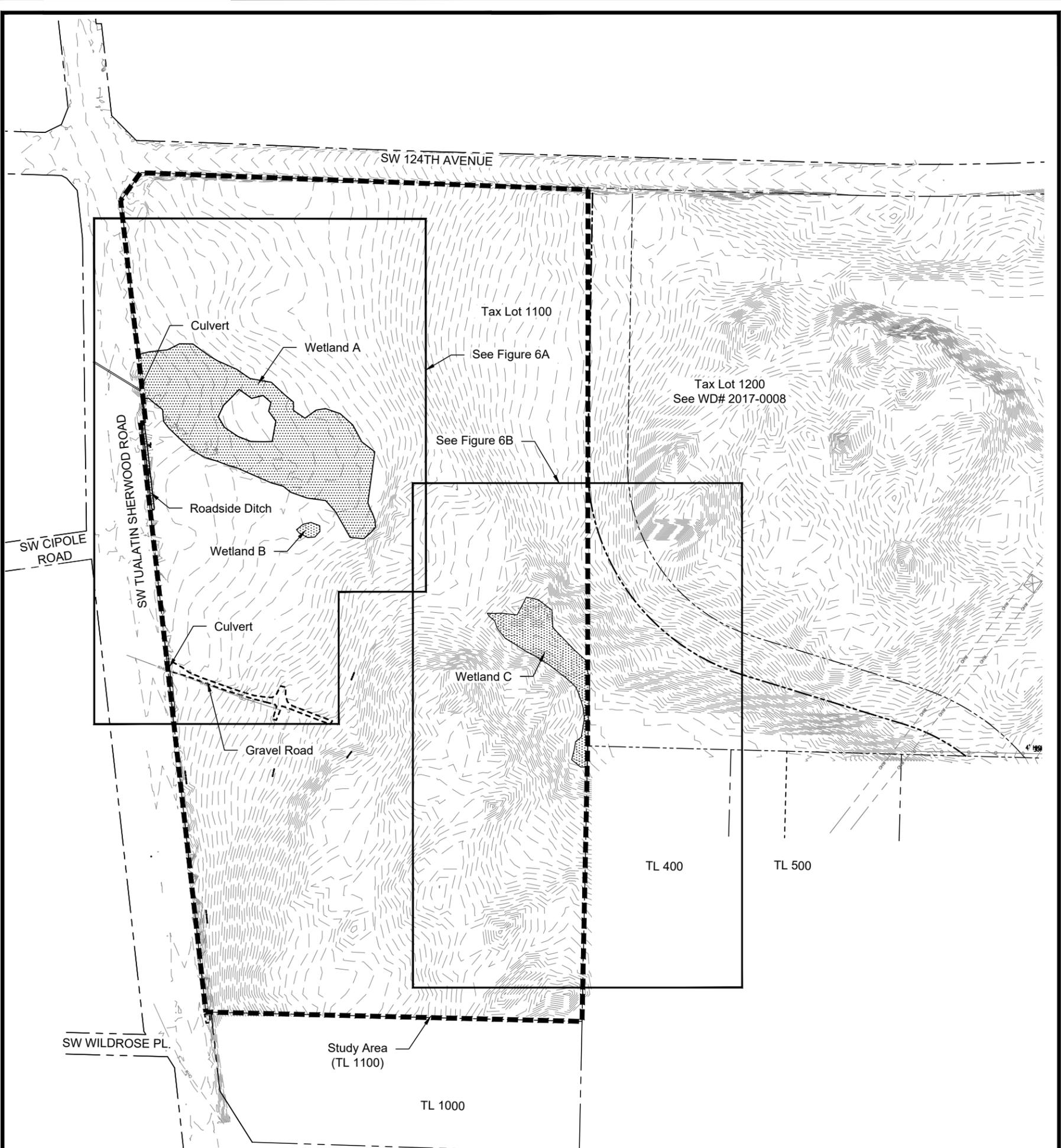
#6163
12/19/2019



Pacific Habitat Services, Inc.
9450 SW Commerce Circle, Suite 180
Wilsonville, OR 97070

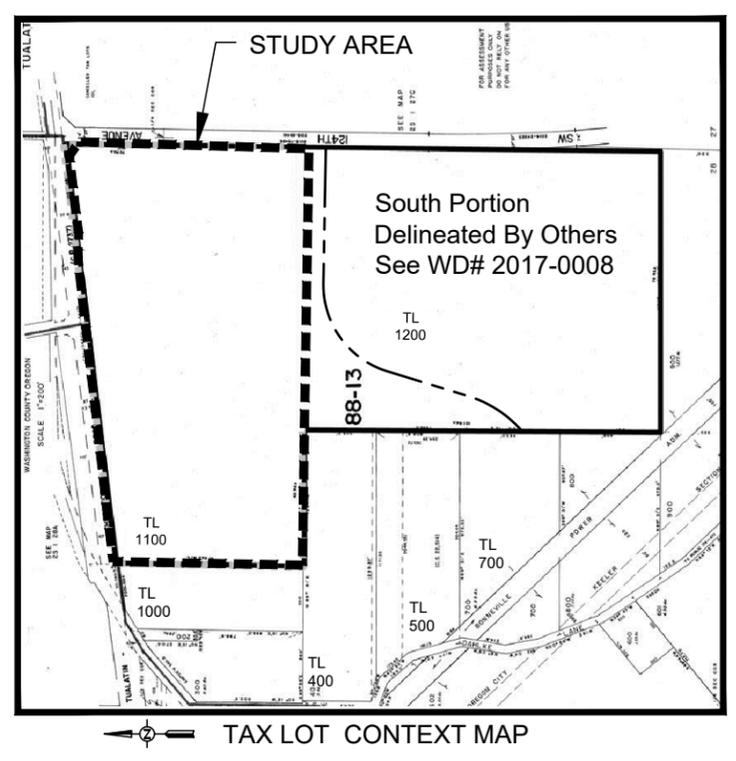
Tax Lot Map
T-S Corporate Park—Sherwood, Oregon
The Oregon Map (ormap.net)

FIGURE
2



- LEGEND**
- ■ ■ ■ Study Area Boundary
 - ▨ Wetland
(Includes Roadside Ditch)
(Site Total 128,047 sf / 2.94 ac)
 - - - - Tax Lot Line
 - - - - Contours

Survey provided by Northwest Survey.
 Survey accuracy is sub-centimeter.
 Sample point accuracy is ± 3 feet.

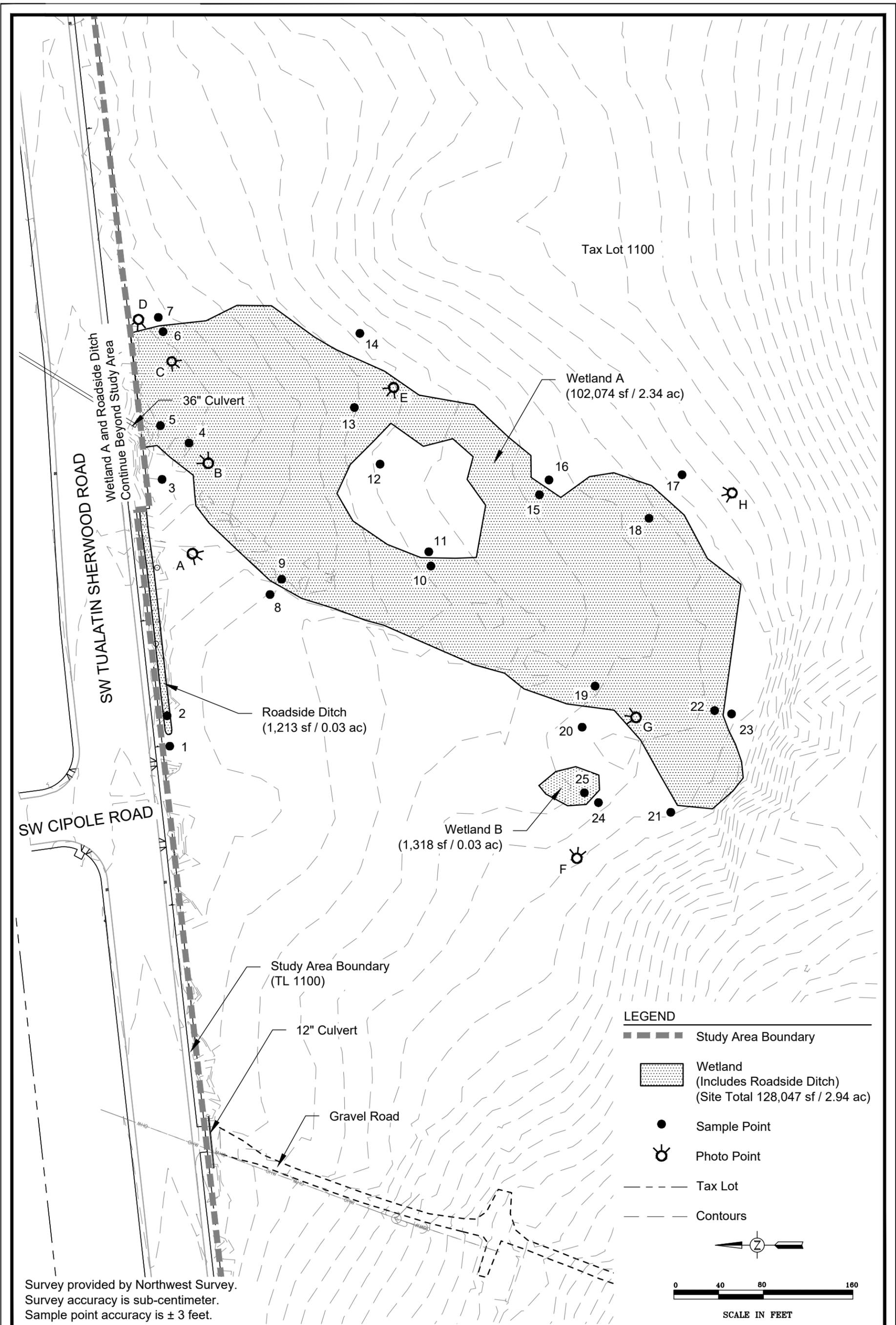


DSL WD # 2020-0015
 Approval Issued 3/11/2020
 Approval Expires 3/11/2025

Wetland Delineation Overview and Sheet Index
 Orr Property - Washington County, Oregon

FIGURE
6

3-6-2020

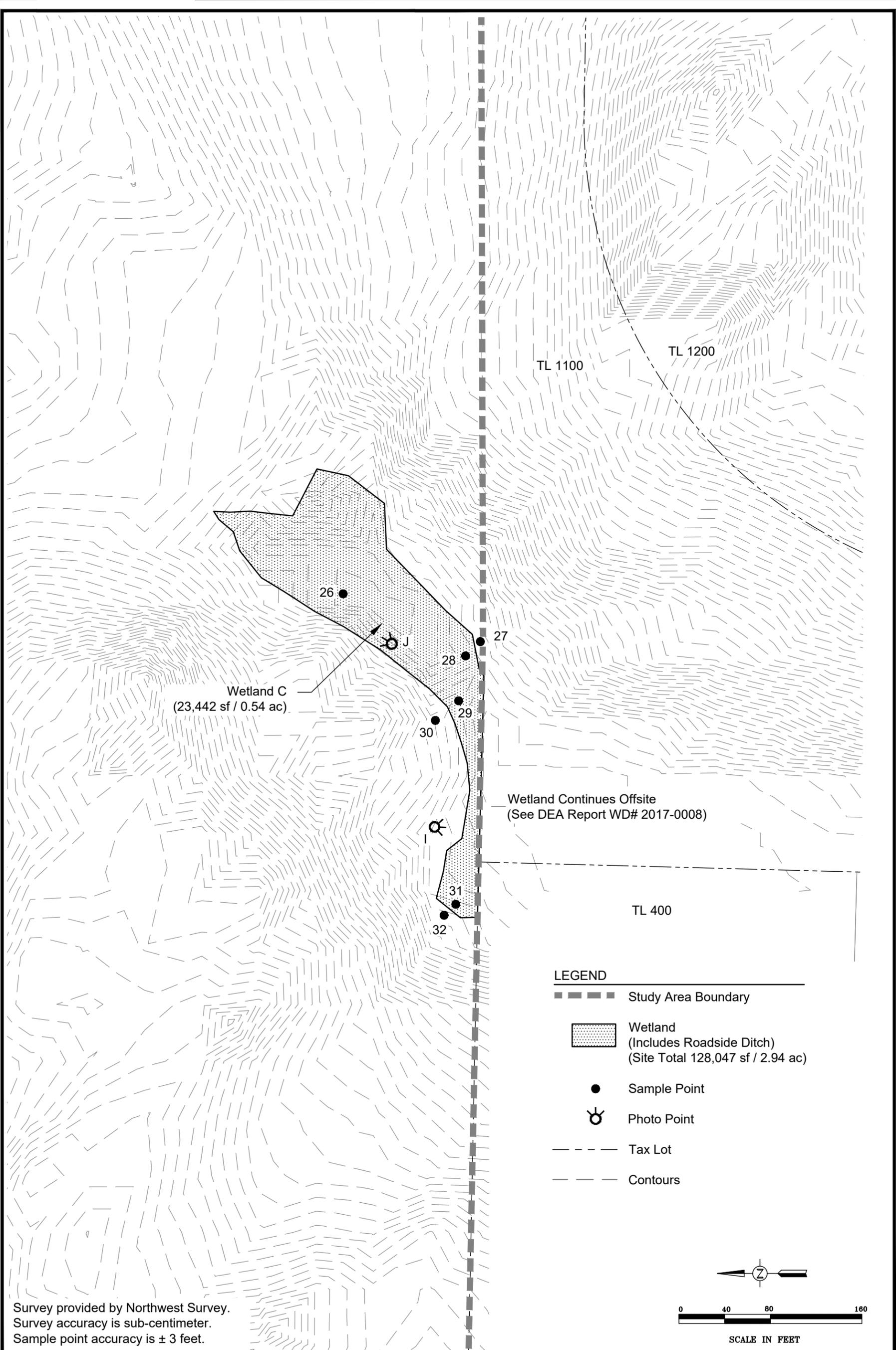


DSL WD # 2020-0015
 Approval Issued 3/11/2020
 Approval Expires 3/11/2025

Wetland Delineation
 T-S Corporate Park - Sherwood Oregon

FIGURE
6A

1-3-2020



Survey provided by Northwest Survey.
Survey accuracy is sub-centimeter.
Sample point accuracy is ± 3 feet.



DSL WD # 2020-0015
Approval Issued 3/11/2020
Approval Expires 3/11/2025

Wetland Delineation
T-S Corporate Park - Sherwood, Oregon

FIGURE
6B

1-3-2020



Oregon

Kate Brown, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregon.gov/dsl

State Land Board

Kate Brown

Governor

March 29, 2017

City of Hillsboro Water Department
Attn: Niki Iverson
150 E. Main Street
Hillsboro, OR 97123-4028

Re: WD # 2017-0008 Wetland Delineation Report for the
Proposed Water Treatment Plant for the Willamette Water
Supply Program Project
Washington County; T2S R1W Sec. 28D, Portion of Tax Lot 100

Dennis Richardson
Secretary of State

Tobias Read
State Treasurer

Dear Ms. Iverson:

The Department of State Lands has reviewed the wetland delineation report prepared by David Evans and Associates, Inc. for the site referenced above. Please note that the study area includes only a portion of the tax lot described above (see the attached map). Based upon the information presented in the report, we concur with the wetland boundaries as mapped in Figure 6 of the report. Within the study area, seven delineated wetlands and one potential wetland (Wetland PW_H) were identified, totaling approximately 6.0 acres.

The wetlands are subject to the permit requirements of the state Removal-Fill Law. Under current regulations, a state permit is required for cumulative fill or annual excavation of 50 cubic yards or more in wetlands. In addition, due to access issues Wetland PW-H was mapped using offsite wetland determination methods including interpretation of Lidar generated contour topography. Because offsite determination methods are not suitable for removal-fill permitting, it will be necessary to use onsite methods and delineate this area prior to project construction. If subsequent onsite wetland delineation work changes the areas of wetland and wetland impact appreciably, the Department may require an addendum wetland report and a revised permit application.

This concurrence is for purposes of the state Removal-Fill Law only. Federal or local permit requirements may apply as well. The Army Corps of Engineers will review the report and make a determination of jurisdiction for purposes of the Clean Water Act at the time that a permit application is submitted. We recommend that you attach a copy of this concurrence letter to both copies of any subsequent joint permit application to speed application review.

Please be advised that state law establishes a preference for avoidance of wetland impacts. Because measures to avoid and minimize wetland impacts may include reconfiguring parcel layout and size or development design, we recommend that you

work with Department staff on appropriate site design before completing the city or county land use approval process.

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

Thank you for having the site evaluated. Please phone me at 503-986-5232 if you have any questions.

Sincerely,


Peter Ryan, PWS
Jurisdiction Coordinator

Approved by 
Kathy Verble, CPSS
Aquatic Resource Specialist

Enclosures

ec: John Macklin, David Evans and Associates, Inc.
Washington County Planning Department
Jaimee Davis, Corps of Engineers
Amber Wierck, Clean Water Services
Anita Huffman, DSL

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

This form must be included with any wetland delineation report submitted to the Department of State Lands for review and approval. A wetland delineation report submittal is not "complete" unless the fully completed and signed report cover form and the required fee are submitted. Attach this form to the front of an unbound report or include a hard copy of the completed form with a CD/DVD that includes a single PDF file of the report cover form and report (minimum 300 dpi resolution) and submit to: **Oregon Department of State Lands, 775 Summer Street NE, Suite 100, Salem, OR 97301-1279**. A single PDF attachment of the completed cover form and report may be e-mailed to Wetland_Delineation@dsl.state.or.us. For submittal of PDF files larger than 10 MB, e-mail instructions on how to access the file from your ftp or other file sharing website. Fees can be paid by check or credit card. Make the check payable to the Oregon Department of State Lands. To pay the fee by credit card, call 503-986-5200.

<input checked="" type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address: Niki Iverson, Water Resource Manager City of Hillsboro Water Department 150 E. Main Street Beaverton, OR 97006 → <i>Hillsboro, OR 97123-4028</i>	Business phone # (503) 615-6770 Mobile phone # (optional) E-mail: niki.iverson@hillsboro-oregon.gov
<input checked="" type="checkbox"/> Authorized Legal Agent, Name and Address: Niki Iverson, Water Resource Manager City of Hillsboro Water Department	Business phone # (503) 615-6770 Mobile phone # E-mail: niki.iverson@hillsboro-oregon.gov
I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact. Typed/Printed Name: <u>Niki Iverson</u> Signature: Date: <u>1/5/17</u> Special instructions regarding site access: _____	

Project and Site Information (using decimal degree format for lat/long., enter centroid of site or start & end points of linear project)

Project Name: Willamette Water Supply Program	Latitude: 45.365033	Longitude: -122.808787
Proposed Use: Water Treatment Plant for Willamette Water Supply Program	Tax Map # 2S128D000100 ✓	
Project Street Address (or other descriptive location): 12900 SW Tualatin-Sherwood Rd	Township 2S Range 1W Section 28 QQ SE/SE	
City: Sherwood County: Washington	Tax Lot(s) 100	Waterway: None River Mile: --
	NWI Quad(s):	

Wetland Delineation Information

Wetland Consultant Name, Firm and Address: John Macklin David Evans and Associates, Inc. 2100 SW River Parkway Portland, OR 97201	Phone # 503-223-6663 Mobile phone # E-mail: jdm@deainc.com
The information and conclusions on this form and in the attached report are true and correct to the best of my knowledge. Consultant Signature: Date: 01-04-2017	
Primary Contact for report review and site access is <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent	
Wetland/Waters Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Study Area size: 31.06 ac Total Wetland Acreage: .16	

Check Box Below if Applicable:

Fees:

<input type="checkbox"/> R-F permit application submitted <input type="checkbox"/> Mitigation bank site <input type="checkbox"/> Wetland restoration/enhancement project (not mitigation) <input type="checkbox"/> Industrial Land Certification Program Site <input type="checkbox"/> Reissuance of a recently expired delineation Previous DSL # _____ Expiration date _____	<input type="checkbox"/> Fee payment submitted \$ 419 <input type="checkbox"/> Fee (\$100) for resubmittal of rejected report <input type="checkbox"/> No fee for request for reissuance of an expired report
Other Information:	
Has previous delineation/application been made on parcel?	Y <input type="checkbox"/> N <input type="checkbox"/> If known, previous DSL # <i>W0 2014-0448 (Perf)</i>
Does LWI, if any, show wetland or waters on parcel?	Y <input type="checkbox"/> N <input type="checkbox"/> <i>RGL5488 & APP 07032 124m dr Ext.</i>

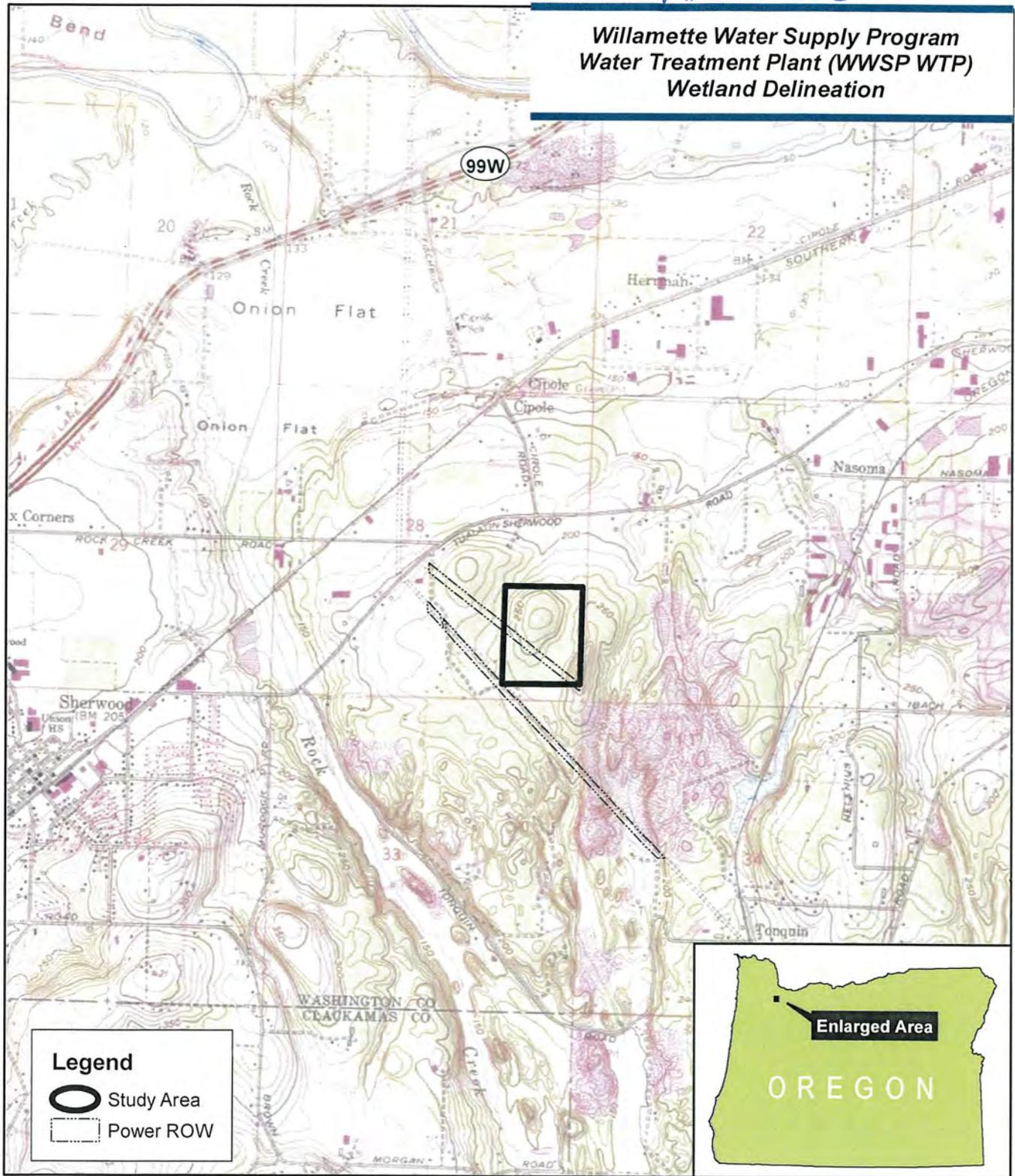
For Office Use Only

DSL Reviewer: <u>PR</u>	Fee Paid Date: <u>1 / 17 / 2017</u>	DSL WD # <u>2017-0008</u>
Date Delineation Received: <u>1 / 9 / 17</u>	DSL Project # _____	DSL Site # _____
Scanned: <input checked="" type="checkbox"/> Final Scan: <input type="checkbox"/>	DSL WN # _____	DSL App. # _____

** Electronic Submittal **

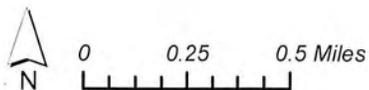
WD2017-0008

Willamette Water Supply Program Water Treatment Plant (WWSP WTP) Wetland Delineation



ESRI, ArcGIS Online, USA Topographic Maps. 30x60 GRID Quadrangles

Figure 1
Vicinity Map



SE 1/4 SECTION 28 T2S R1W W.M.

WASHINGTON COUNTY OREGON

SCALE 1"=200'

2S 1 28D
TUALATIN

SEE MAP
2S 1 28A

CANCELLED TAX LOTS
101



88-13

*Portion Tax Lot
100*

SEE MAP
2S 1 27C

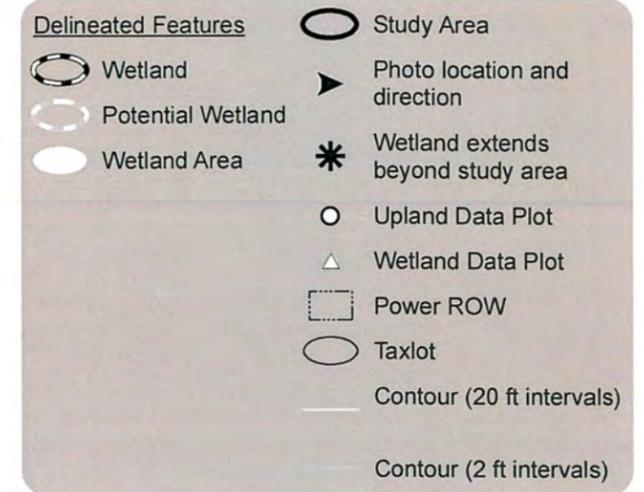
FOR ASSESSMENT
PURPOSES ONLY
DO NOT RELY ON
FOR ANY OTHER USE

WD2017-0008
TUALATIN
2S 1 28D

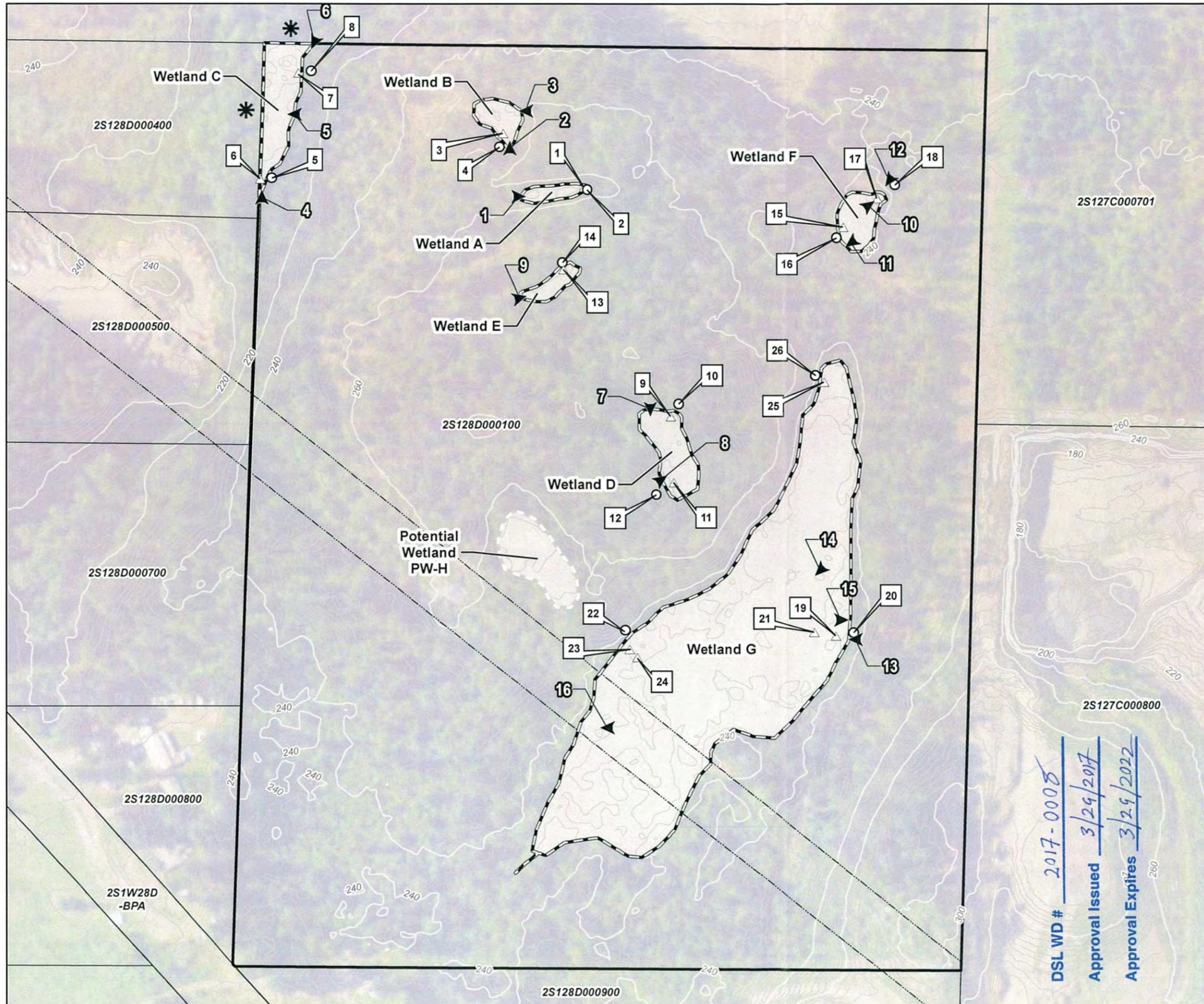
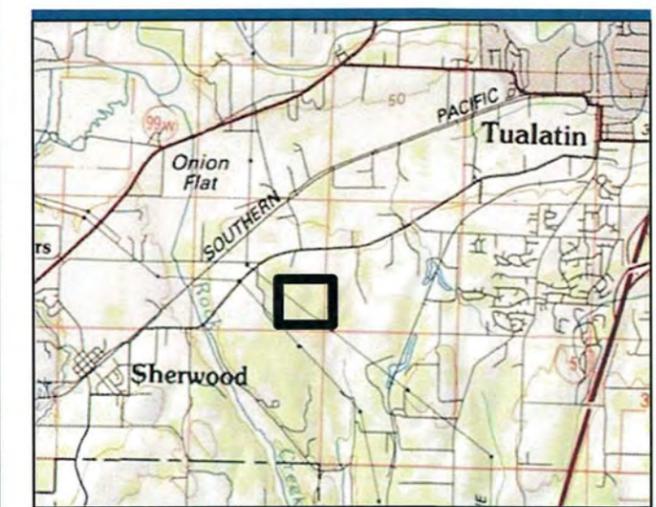
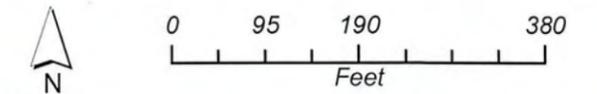
27 28 33 34

**Willamette Water Supply Program
Water Treatment Plant (WWSP WTP)
Wetland Delineation**

**Figure 6
Delineated Wetlands**



On-site features (wetlands, ditches, streams, culverts, and data plots) were mapped with a Trimble Pathfinder GEO XH receiver with typical accuracy of 3 feet or better. Off-site boundaries are approximate and were mapped based on field review from adjacent public right of way and aerial photo interpretation. An asterisk was included where jurisdictional features, with the exclusion of upland ditches, extend off site. Only taxlots which intersect the study area are labeled. Imagery: USDA NAIP 2016.



DSL WD # 2017-0005
Approval Issued 3/29/2017
Approval Expires 3/29/2022