

Received
Planning Division
12/13/2023



Exhibit I: Wetland and Water Delineation Report



Oregon

Tina Kotek, Governor

Department of State Lands

775 Summer Street NE, Suite 100

Salem, OR 97301-1279

(503) 986-5200

FAX (503) 378-4844

www.oregon.gov/dsl

September 18, 2023

State Land Board

Tualatin Hills Park and Recreation District
Fanno Creek Service Center
Attn: Rene Brucker
6220 SW 112th Avenue, Suite 100
Beaverton, OR 97008

Tina Kotek
Governor

LaVonne Griffin-Valade
Secretary of State

Re: WD #2023-0315 **Approved**
Delineation Report for the THPRD Willow Creek Boardwalk
Washington County; T1N R1W S32BC TL3001; S31AD TL102;
S31DA TL12000 (Portions)
City of Beaverton Local Wetlands Inventory Wetland WI-2a

Tobias Read
State Treasurer

Dear Rene Brucker:

The Department of State Lands has reviewed the wetland delineation report prepared by AKS Engineering & Forestry for the site referenced above. Please note that the 2 study areas include only a portion of the tax lots 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 7 and 7A of the report. Please replace all copies of the preliminary wetland maps with these final Department-approved maps.

Within the 2 study areas, 2 wetlands (Wetland A and B, totaling approximately 0.24 acre) and one waterway (Willow Creek) were identified. The wetlands and creek are subject to the permit requirements of the state Removal-Fill Law. Normally, 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). However, Willow Creek is an essential salmonid stream; therefore, fill or removal of any amount of material below its OHWL or within hydrologically-connected wetlands (Wetland A and B) may require a state permit.

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

Please be advised that state law establishes a preference for avoidance of 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 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, PWS, the Jurisdiction Coordinator for Washington County at 503-798-7622.

Sincerely,

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

Peter Ryan, SPWS
Aquatic Resource Specialist

Enclosures

ec: Sonya Davis, AKS Engineering & Forestry
City of Beaverton Planning Department
Rafael Orozco, Corps of Engineers
Michael De Blasi, DSL
Lindsey Obermiller, Clean Water Services

WETLAND DELINEATION / DETERMINATION REPORT COVER FORM

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

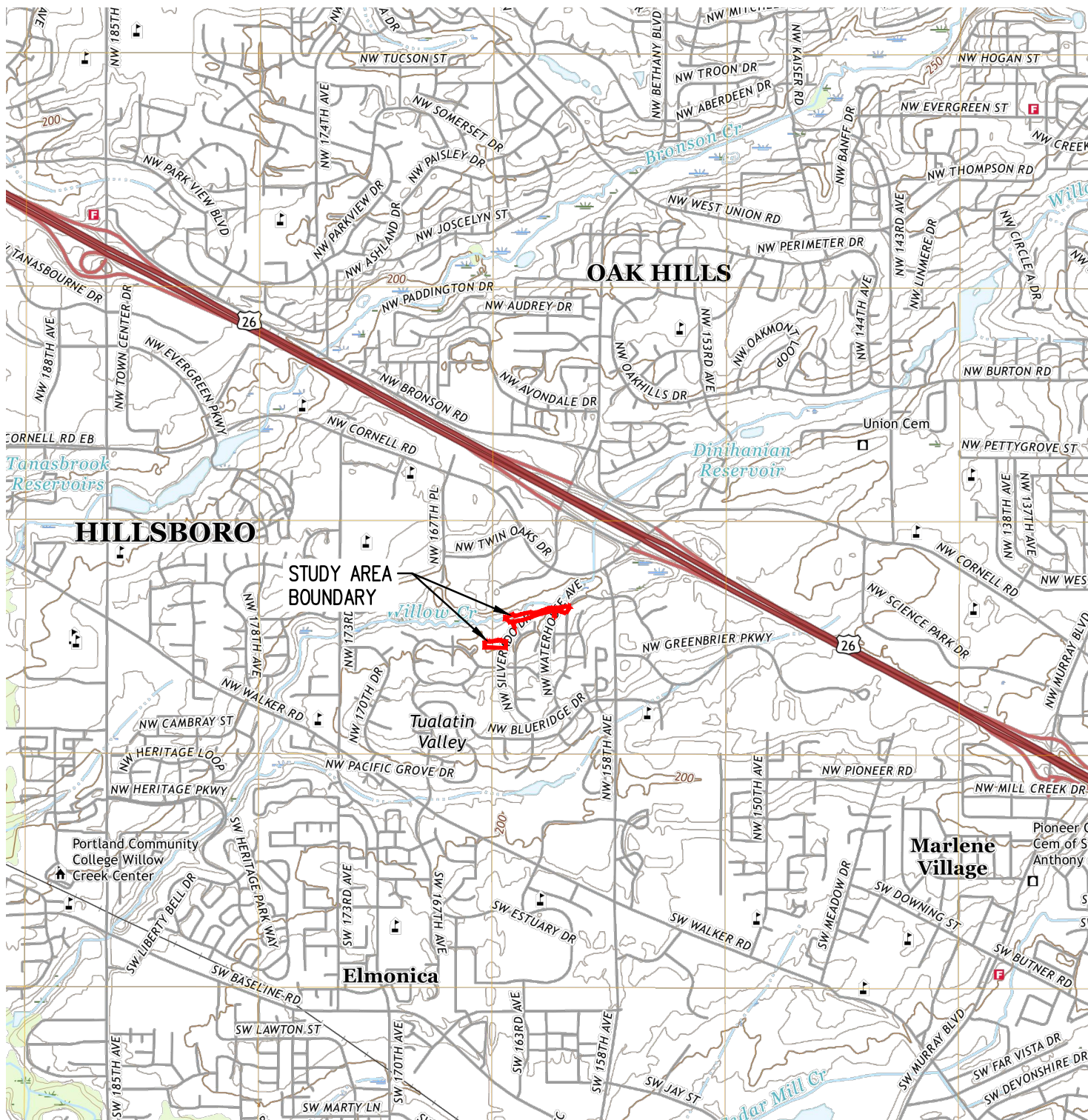
Ways to submit report:

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

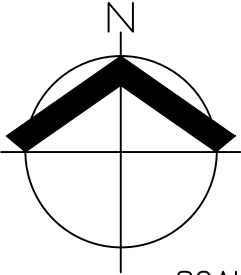
Ways to pay review fee:

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

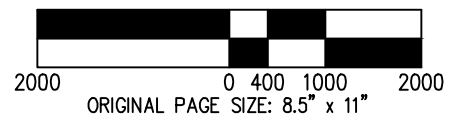
Contact and Authorization Information	
<input type="checkbox"/> Applicant <input type="checkbox"/> Owner Name, Firm and Address:	Business phone # Mobile phone # (optional) E-mail:
<input type="checkbox"/> Authorized Legal Agent, Name and Address (if different):	Business phone # Mobile phone # (optional) E-mail:
I either own the property described below or I have legal authority to allow access to the property. I authorize the Department to access the property for the purpose of confirming the information in the report, after prior notification to the primary contact.	
Typed/Printed Name: _____ Signature: <u><i>Rene' Bruckner</i></u> Date: _____ Special instructions regarding site access: _____	
Project and Site Information	
Project Name:	Latitude: _____ Longitude: _____ decimal degree - centroid of site or start & end points of linear project
Proposed Use:	Tax Map # _____ Tax Lot(s) _____ ----- Tax Map # _____ Tax Lot(s) _____
Project Street Address (or other descriptive location):	Township _____ Range _____ Section _____ QQ _____ Use separate sheet for additional tax and location information
City: _____ County: _____	Waterway: _____ River Mile: _____
Wetland Delineation Information	
Wetland Consultant Name, Firm and Address:	Phone # _____ Mobile phone # (if applicable) _____ E-mail: _____
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>Sonya Templeton</i></u>	Date: <u>7/19/2023</u>
Primary Contact for report review and site access is <input type="checkbox"/> Consultant <input type="checkbox"/> Applicant/Owner <input type="checkbox"/> Authorized Agent	
Wetland/Waters Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Study Area size: _____ Total Wetland Acreage: <u>0.24</u>
Check Applicable Boxes Below	
<input type="checkbox"/> R-F permit application submitted	<input type="checkbox"/> Fee payment submitted \$ _____
<input type="checkbox"/> Mitigation bank site	<input type="checkbox"/> Resubmittal of rejected report (\$100)
<input type="checkbox"/> EFSC/ODOE Proj. Mgr:	<input type="checkbox"/> Request for Reissuance. See eligibility criteria. (no fee)
<input type="checkbox"/> Wetland restoration/enhancement project (not mitigation)	DSL # _____ Expiration date _____
<input type="checkbox"/> Previous delineation/application on parcel If known, previous DSL # _____	<input type="checkbox"/> LWI shows wetlands or waters on parcel Wetland ID code _____
For Office Use Only	
DSL Reviewer: <u>CS</u>	Fee Paid Date: _____ / _____ / _____
Date Delineation Received: <u>07 / 19 / 2023</u>	DSL WD # <u>2023-0315</u> DSL App.# _____



USGS 7.5' TOPOGRAPHIC SERIES
 QUADRANGLE: LINNTON, OR (2020)



SCALE: 1" = 2000 FEET



DATE: 07/10/2023

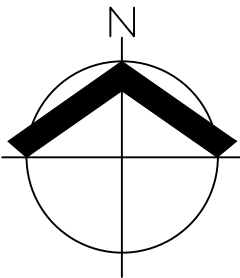
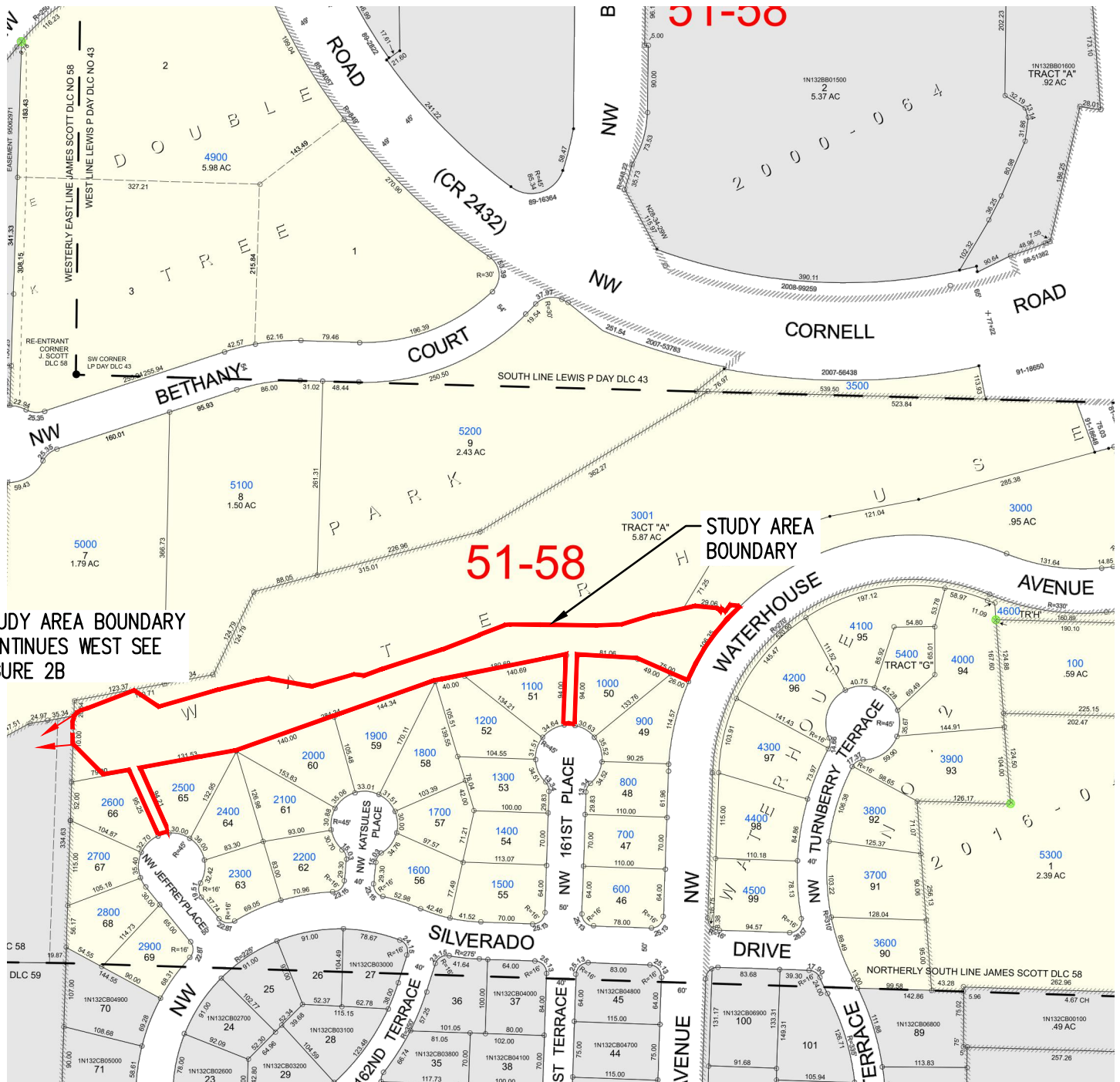
USGS VICINITY MAP
 THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151 WWW.AKS-ENG.COM

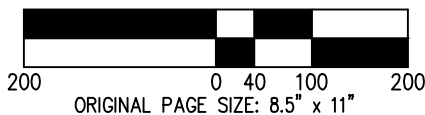


FIGURE
1

DRWN: GPM
 CHKD: RAS
 AKS JOB:
 8015-01



SCALE: 1" = 200 FEET



TAX MAP (MAP 1N 1W 32BC)
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

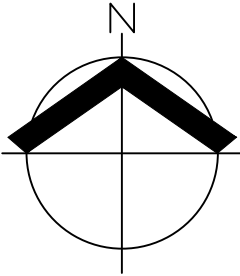
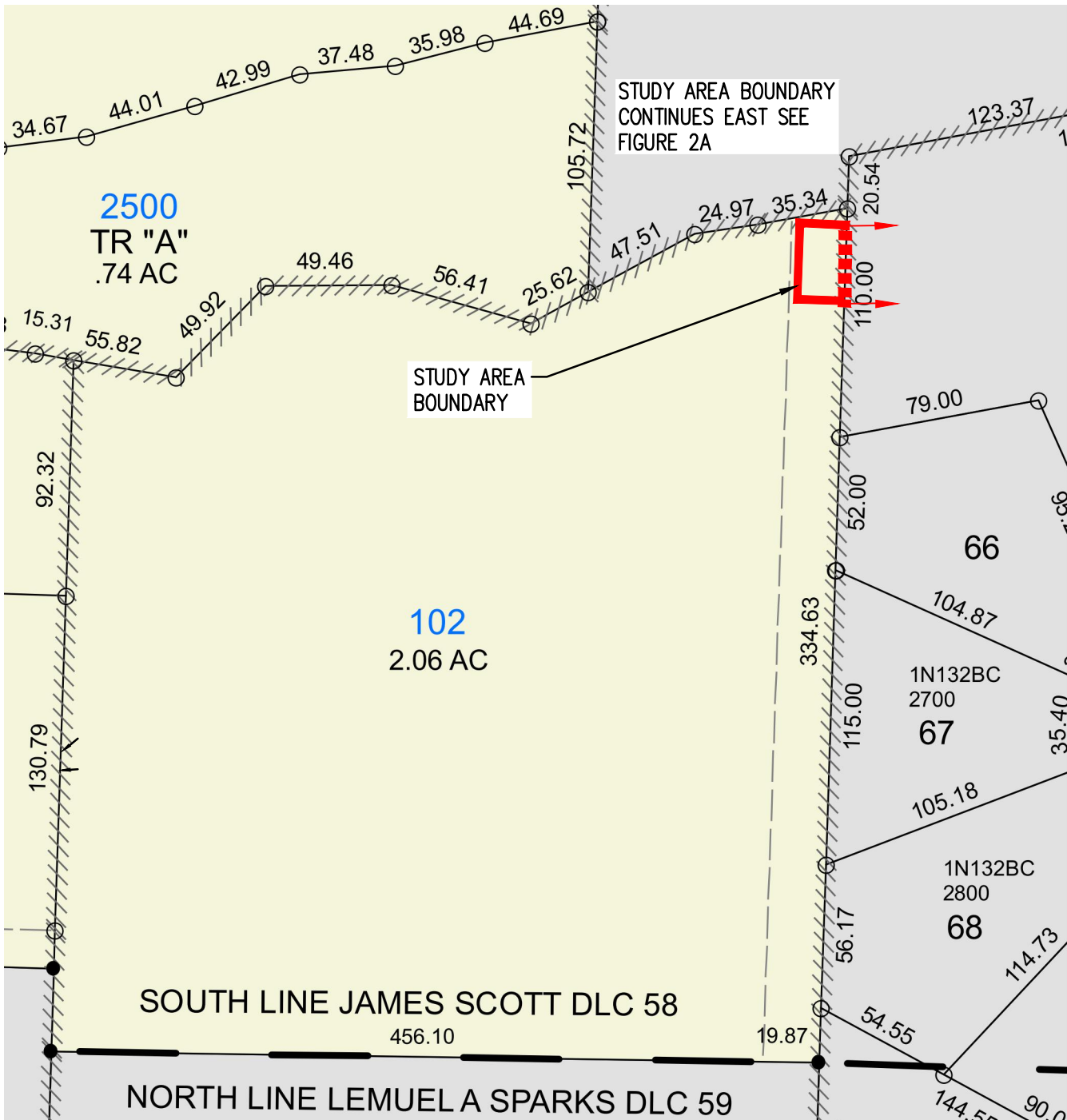
AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM



DATE: 07/10/2023

FIGURE
2A

DRWN: GPM
CHKD: RAS
AKS JOB:
8015-01



WASHINGTON COUNTY
 PORTION OF TAX LOT 102
 TAX MAP 1N 1W 31AD

DATE: 07/10/2023

SCALE: 1" = 60 FEET



ORIGINAL PAGE SIZE: 8.5" x 11"

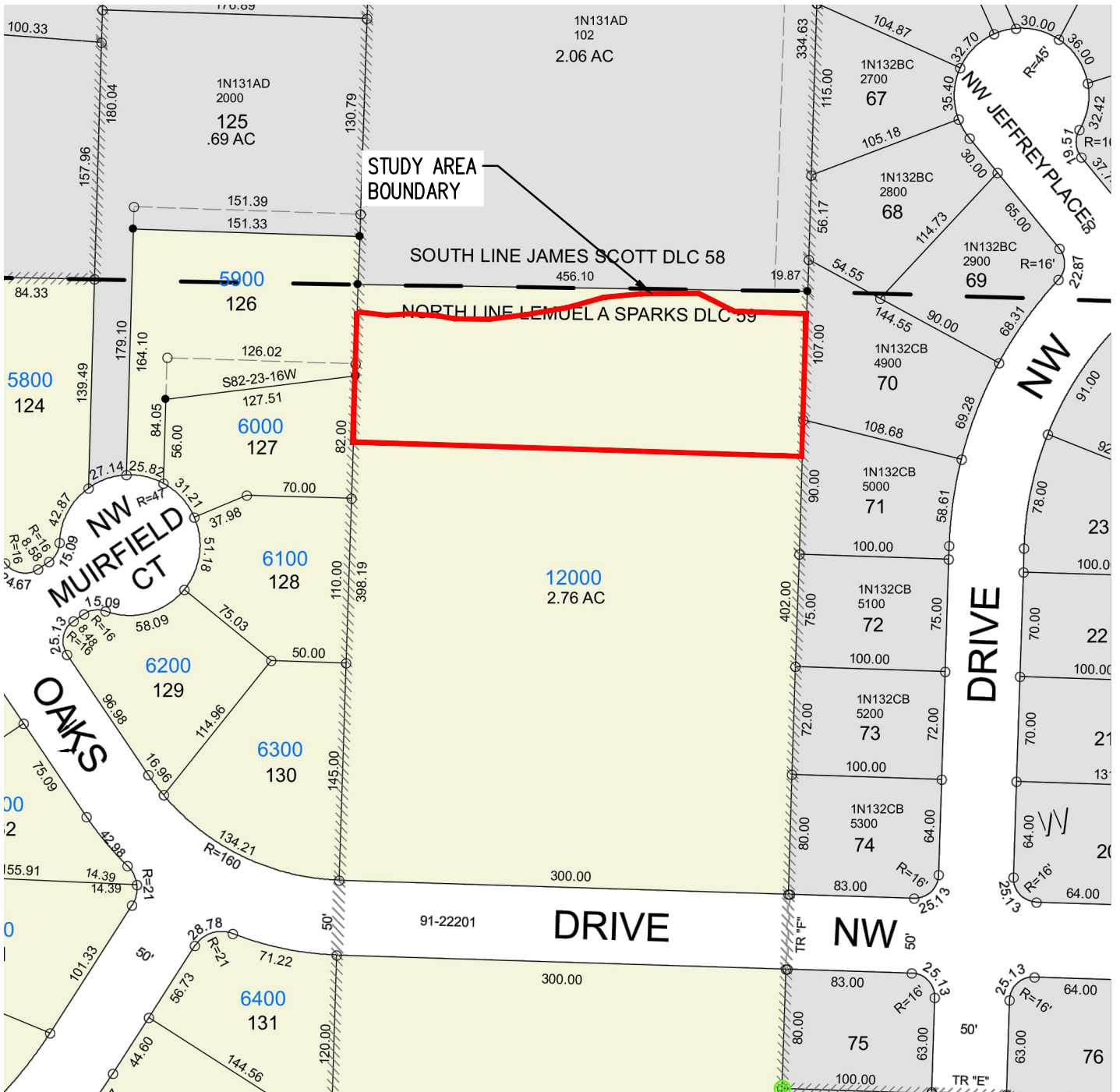
TAX MAP (MAP 1N 1W 31AD)
 THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151 WWW.AKS-ENG.COM

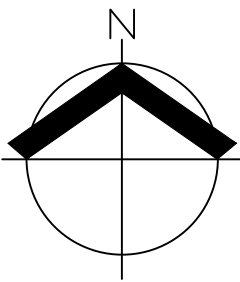


FIGURE
2B

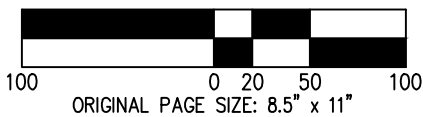
DRWN: GPM
 CHKD: RAS
 AKS JOB:
 8015-01




WASHINGTON COUNTY
 PORTION OF TAX LOT 12000
 TAX MAP 1N 1W 31DA

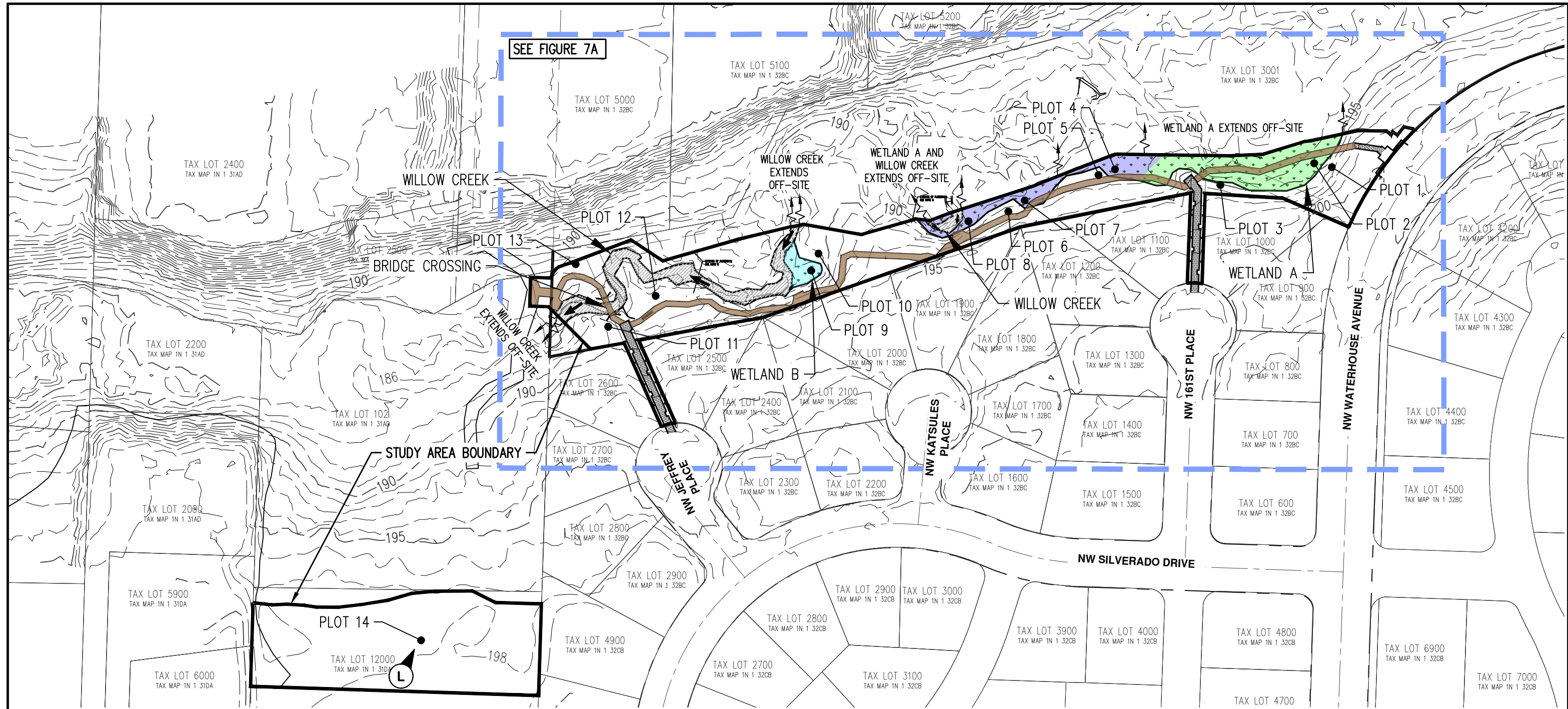


SCALE: 1" = 100 FEET



DATE: 07/10/2023

TAX MAP (MAP 1N 1W 31DA)		FIGURE
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		2C
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: GPM CHKD: RAS AKS JOB: 8015-01
		



SEE FIGURE 7A

LEGEND (COLOR COPY):

TOTAL ON-SITE WETLAND AREA: 10,497 SF± (0.24 ACRES±)

WETLAND A AREA: 9,542 SF± (0.22 ACRES±)

WETLAND B AREA: 955 SF± (0.02 ACRES±)

PEM/SLOPE WETLAND AREA: 955 SF± (0.02 ACRES±)

PFO/SLOPE WETLAND AREA: 6,089 SF± (0.14 ACRES±)

PSS/SLOPE WETLAND AREA: 3,452 SF± (0.08 ACRES±)

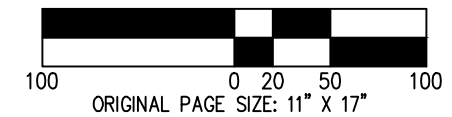
TOTAL ON-SITE WILLOW CREEK ESH AREA:
4,908 SF± (0.11 ACRES±) / 481 LF±

PHOTO POINT LOCATION AND ORIENTATION

WETLAND AND WATER BOUNDARIES AND PLOT LOCATIONS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC ON APRIL 20, 2023 AND WERE LOCATED WITH SUB-METER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

1 FOOT GROUND CONTOURS, EXISTING CONDITIONS, TREE SURVEY OF TREES >6" DBH, AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY WITH SUBMETER ACCURACY ON APRIL 26-28, 2023. STUDY AREA BOUNDARY DETERMINED PRIOR TO FIELDWORK BASED ON EXTENT OF PROJECT AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY 2020.

SCALE: 1"=100 FEET



DATE: 09/13/2023

DSL WD # 2023-0315
Approval Issued 9/18/2023
Approval Expires 9/18/2028

**WETLAND AND WATER DELINEATION
OVERVIEW MAP**

FIGURE

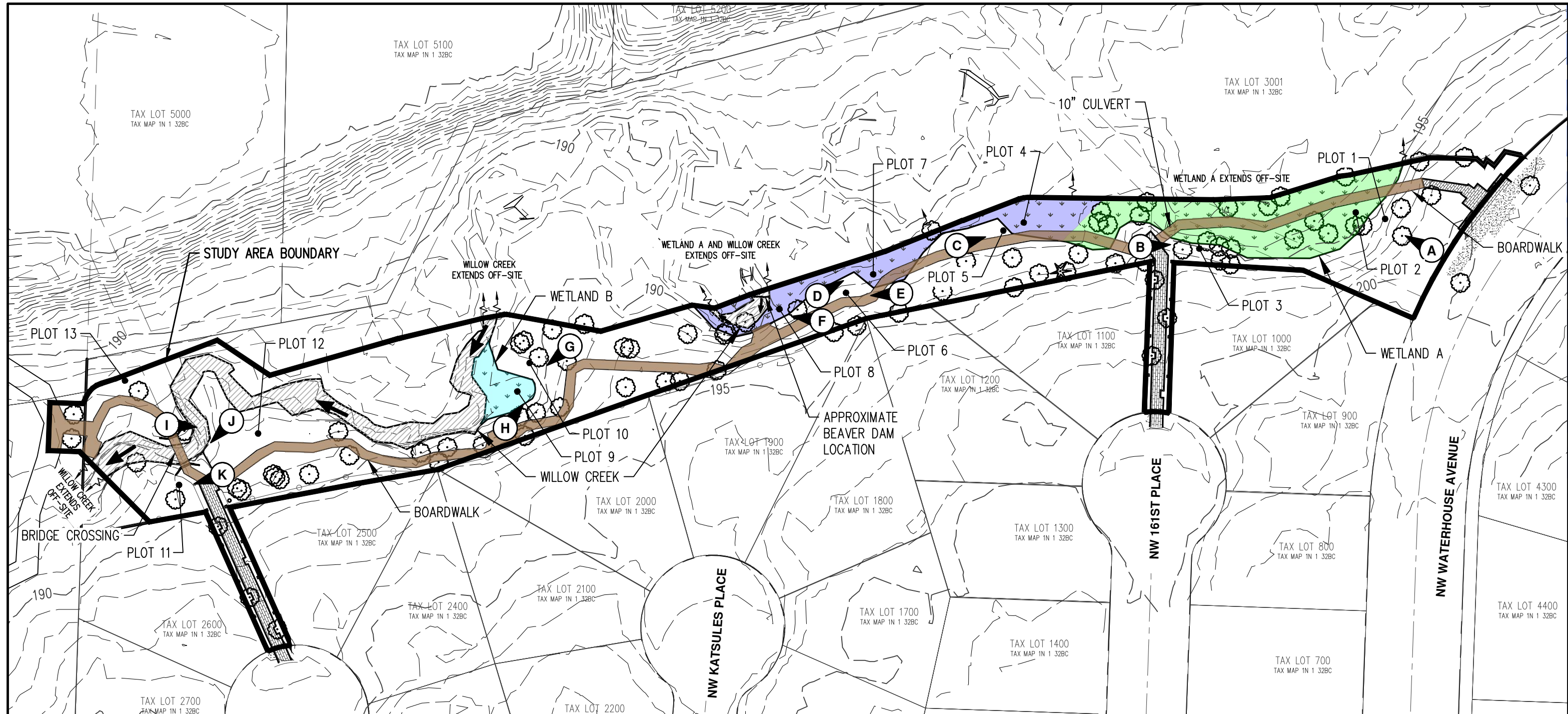
7

THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM



DRWN: GPM
CHKD: RAS
AKS JOB:
8015-01



LEGEND (COLOR COPY):

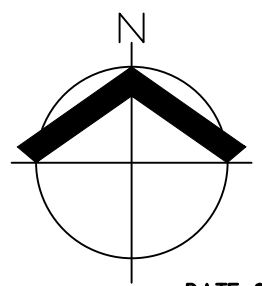
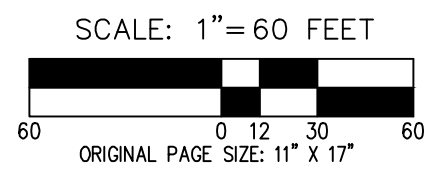
- TOTAL ON-SITE WETLAND AREA: 10,497 SF± (0.24 ACRES±)
- WETLAND A AREA: 9,542 SF± (0.22 ACRES±)
- WETLAND B AREA: 955 SF± (0.02 ACRES±)
- PEM/SLOPE WETLAND AREA: 955 SF± (0.02 ACRES±)
- PFO/SLOPE WETLAND AREA: 6,089 SF± (0.14 ACRES±)
- PSS/SLOPE WETLAND AREA: 3,452 SF± (0.08 ACRES±)
- TOTAL ON-SITE WILLOW CREEK ESH AREA: 4,908 SF± (0.11 ACRES±)/ 481 LF±

A PHOTO POINT LOCATION AND ORIENTATION

WETLAND AND WATER BOUNDARIES AND PLOT LOCATIONS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC ON APRIL 20, 2023 AND WERE LOCATED WITH SUB-METER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

1 FOOT GROUND CONTOURS, EXISTING CONDITIONS, TREE SURVEY OF TREES >6" DBH, AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY WITH SUBMETER ACCURACY ON APRIL 26-28, 2023. STUDY AREA BOUNDARY DETERMINED PRIOR TO FIELDWORK BASED ON EXTENT OF PROJECT AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY 2020.

DSL WD # 2023-0315
 Approval Issued 9/18/2023
 Approval Expires 9/18/2028



DATE: 09/13/2023

WETLAND AND WATER DELINEATION MAP		FIGURE 7A
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		DRWN: GPM
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		CHKD: RAS
AKS		AKS JOB: 8015-01

DWG: 8015-01_MDR_EXCOND | FIGURE 7A

THPRD Willow Creek Boardwalk Beaverton, Oregon Wetland and Water Delineation Report

Date: July 2023

Prepared for: Tualatin Hills Parks & Recreation District
Fanno Creek Service Center
6220 SW 112th Avenue Suite 100
Beaverton, OR 97008

Prepared by: AKS Engineering & Forestry, LLC
Rebecca Schilling, Natural Resource Specialist
Sonya Templeton, Wetland Scientist
Stacey Reed, PWS, Senior Wetland Scientist

Study Area: Willow Creek Greenway Trail, Beaverton Oregon
Washington County Assessor's Map
1N 1 31AD, Portion of Tax Lot 102
1N 1 31DA, Portion of Tax Lot 12000
1N 1 32BC, Portions of Tax Lot 3001

**AKS Job
Number:** 8015-01



12965 SW Herman Road, Suite 100
Tualatin, OR 97062
(503) 563-6151

Table of Contents

Introduction.....	1
A. Landscape Setting and Land Use.....	1
B. Site Alterations	2
C. Precipitation Data and Analysis	2
D. Methods	2
E. Description of All Wetlands and Other Non-Wetland Waters	3
Wetlands	3
Non-Wetland Waters	4
Willow Creek.....	4
F. Deviation From SWI	4
G. Mapping Method	4
H. Additional Information.....	5
I. Summary of Results and Conclusions.....	5
J. Required Disclaimer	5
K. List of Preparers	6
Literature Cited and Referenced	7

Tables

Table 1: Precipitation Data Prior to the April 2023 Site Visit.....	2
Table 2: Summary of Study Results and Conclusions	5

Appendices

Appendix A: Maps

Figure 1: USGS Vicinity Map

Figure 2A-2C: Washington County Assessor’s Map (1N 1 31AD, 1N 1 31DA, 1N 1 32BC)

Figure 3: NRCS Soil Survey Map

Figure 4: Statewide Wetlands Inventory (SWI) Map

Figure 5: Recent Aerial Photograph

Figure 6: Tax Map Reference of Study Area Boundary

Figures 7-7A: Wetland and Water Delineation Maps

Appendix B: Wetland Determination Data Form

Appendix C: Representative Site Photographs

Introduction

This report was prepared by AKS Engineering & Forestry, LLC (AKS) in accordance with current Oregon Administrative Rules (OAR) 141-090-0030 and 141-090-0035 (1-17) and describes the results of a wetland and waters delineation conducted for a boardwalk replacement project. The study area consists of two areas. The northern study area is where the boardwalk replacement project will occur, located on the eastern portion of Tualatin Hills Parks & Recreation District (THPRD) Willow Creek Greenway. The southern study area will be a staging area for the boardwalk replacement project. The study area combined is approximately 2 acres in size and is situated between NW 173rd Avenue and NW 158th Avenue in Beaverton, Washington County, Oregon; portion of Tax Lot 3001 of Washington County Assessor's Map 1N 1 32BC, portion of Tax Lot 102 on County Assessor's Map 1N 1 31AD, and a portion of Tax Lot 12000 of Washington County Assessor's Map 1N 1 31DA, latitude and longitude 45.528411, -122.843174 (Figures 1 through 2C in Appendix A).

AKS delineated the on-site boundary associated with a palustrine forested/scrub-shrub/emergent (PFO/PSS/PEM) wetland (referred to as Wetland A) and perennial Willow Creek within the study area. Wetland conditions extend beyond the study area to the north. Willow Creek flows off-site to the north and to the west. Both Wetland A and Willow Creek are likely to be determined jurisdictional to the Department of State Lands (DSL). Within the study area, Willow Creek is mapped by DSL and Oregon Department of Fish and Wildlife (ODFW) as an Essential Salmonid Habitat (ESH) stream.

A. Landscape Setting and Land Use

The study area consists of undeveloped park actively used for public recreational purposes. A paved path (referred to as Waterhouse trail) traverses across the southern study area. The paved path transitions to an elevated boardwalk (referred to as Willow Creek Greenway Trail) which meanders through the northern study area. The boardwalk can be accessed from neighboring streets and the Waterhouse trail.

The vegetation communities along the boardwalk and within the northern study area consists of forested, shrub-scrub, and herbaceous wetland, as well as maintained forested riparian areas. Land use south of the study area consists of single-family residential with commercial land use to the north of the study area.

The topography in the study area is generally flat, with a gentle southwesterly slope (less than 5 percent overall slopes) towards Willow Creek.

The following soil units are mapped within the study area, according to the Natural Resources Conservation Service (NRCS) Washington County Oregon Area Soil Survey Map (Figure 3 in Appendix A):

- Unit 2: Amity silt loam; Non-Hydric
- Unit 13: Cove silty clay loam; Hydric
- Unit 19: Helvetia silt loam; 2 to 7 percent slopes; Non-hydric

A recent aerial photograph of the study area is included as Figure 5.

B. Site Alterations

The Willow Creek Greenway boardwalk was originally constructed sometime between 1982-1984. According to a review of Google Earth aerial imagery, the site has been an undeveloped greenspace park since at least 1990. There does not appear to have been any recent site alterations that would have affected the extent of potentially jurisdictional wetlands or waters on the site.

C. Precipitation Data and Analysis

Observed precipitation data was obtained from the Hillsboro weather station via the National Oceanic and Atmospheric Administration (NOAA) Applied Climate Information System (ACIS) and the NRCS Climate Analysis for Wetlands Tables (WETS) Hillsboro Airport station. According to the Hillsboro Airport station the day of our April 20, 2023 site visit was approximately 48 degrees Fahrenheit and there were visual observations of new bud burst. Therefore, our site visit was conducted in the beginning of the growing season.

According to the NWS Hillsboro weather station, the Hillsboro area received approximately 0.25 inches of rainfall on the day of the April 20, 2023, site visit and 3.02 inches within the two weeks prior. According to the NWS, rainfall received at the Hillsboro station water-year-to-date (since October 1, 2022) was 29.05 inches, which is approximately 0.61 inches below normal for this time of year.

Table 1 provides a summary of whether the three months prior to the site visit were considered to have been within normal precipitation range when compared with WETS historical data. Raw data is available upon request. According to the Hillsboro station WETS data for the three months prior to the April 2023 site visit, precipitation conditions were considered normal. However, above normal rainfall was received during the two weeks prior to our site visit. Plots lacking wetland hydrology indicators were determined to be upland (Plots 11 and 14).

Table 1: Precipitation Data Prior to the April 2023 Site Visit

Prior Months	Observed Precipitation (Inches)	Average WETS Precipitation (Inches)	30% Chance Will Have		Condition Dry, Wet, Normal	Condition Value (1=Dry, 2=Normal, 3=Wet)	Month Weight	Multiply Previous 2 Columns
			Less Than (Inches)	More Than (Inches)				
Mar 2023	4.45	3.59	2.56	4.24	Wet	3	3	9
Feb 2023	2.21	3.61	2.26	4.35	Dry	1	2	2
Jan 2023	3.48	5.24	3.69	6.21	Dry	1	1	1
							Sum	12
								Normal
Rainfall of prior period was: drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18)								

D. Methods

The methodology used to determine the presence of wetlands followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*

(Wakeley et al., 2010). The *National Wetland Plant List* (USACE, 2020) was used to assign wetland indicator status for the appropriate region.

Fieldwork was conducted on April 20, 2023, by AKS Rebecca Schilling, Natural Resources Specialist and Sonya Templeton, Wetland Scientist. Soils, vegetation, and indicators of hydrology were recorded at 14 sample plot locations on standardized wetland determination data forms (Appendix B) to document site conditions.

The non-wetland waters ordinary high water (OHW) associated with Willow Creek was delineated based on physical field indicators in accordance with Oregon Administrative Rule (OAR) 141-085-0515 (3) which consisted of a clean line in the bank, change in vegetation, and exposed roots.

The study area boundary was determined prior to the site visit. The extents of our study area linework was uploaded into the handheld Trimble Geo7X Global Positioning System (GPS) unit so that AKS staff could navigate and evaluate conditions efficiently.

Representative ground-level site photographs are included in Appendix C. References cited and literature used are listed at the end of this report.

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

Wetlands

Wetland A was delineated adjacent to Willow Creek and consists of PFO/PSS/PEM floodplain wetland. Portions of the wetland receive hydrologic input from overbank flooding, while a majority of the wetland is disconnected from the floodplain receiving input from direct precipitation and a seasonally high-water table; therefore, Wetland A predominantly belongs to the Slope Hydrogeomorphic (HGM) subclassification. Wetland conditions appear to extend off-site to the north of our study area.

Dominant vegetation within PFO portions of the wetland included Oregon ash (*Fraxinus latifolia*; FACW) and willow (*Salix* species), with common velvet grass (*Holcus lanatus*, FAC) in the understory. Vegetation dominant within PSS portions of the wetland included redosier dogwood (*Cornus alba*; FACW), salmonberry (*Rubus spectabilis*; FAC), Nootka rose (FAC), and Pacific ninebark (*Physocarpus capitatus*, FACW). Vegetation dominant within PEM portions of the wetland included reed canary grass (*Phalaris arundinacea*, FACW), common rush (*Juncus effusus*, FACW), piggyback-plant (*Tolmiea menziesii*, FAC), slough sedge (*Carex obnupta*, OBL), with lesser amounts of coastal hedge-nettle, common horsetail (*Equisetum arvense*, FAC), fringed willowherb (*Epilobium ciliatum*, FACW) and common lady fern (*Athyrium filix-femina*; FAC).

Soils within the wetland met hydric soil indicators F6 Redox Dark Surface and F3 Depleted Matrix. During the site visit, primary indicators of hydrology including a High Water Table (A2) and Saturation (A3) were met at each wetland plot (Plots 2, 4, 7, and 8). Surface ponding up to 1-inch in depth was observed in lower elevational areas of Wetland A as documented at Plot 9.

The wetland boundary was delineated based on a change in plant community from a hydrophytic-dominated vegetation community in the wetland to non-hydrophytic-dominated vegetation in the upland areas. The change in vegetation also coincided with a distinct change in the landform from concave low elevation in the wetland to convex hillslope in the upland.

Paired upland plots lacked hydric soil and wetland hydrology indicators. Portions of the existing boardwalk span wetland. The boardwalk is approximately 2 feet above the ground surface. No vegetation was growing under the existing boardwalk; therefore, areas under the boardwalk were not delineated as wetland.

Non-Wetland Waters

Willow Creek

Willow Creek flows westerly meandering through the study area, extending off-site to the north and west. Within the study area, the channel width varied depending on beaver activity, but averaged approximately 8 feet wide with 3-foot tall banks. Directly upstream of the beaver dam (Figure 7 and 7A), the channel was approximately 12-feet wide and 2-foot tall banks.

The banks of the channel were dominant in Himalayan blackberry (*Rubus armeniacus*; FAC) and reed canary grass, with lesser amounts of willow. The riparian vegetation community consisted of PEM/PSS/PFO wetland as well as Douglas-fir (*Pseudotsuga menziesii*), big-leaf maple (*Acer macrophyllum*), and tall fescue (*Schedonorus arundinaceus*). The channel bed was generally unvegetated. The dominant substrate was silty clay, with scattered pockets of gravels and cobbles with large woody debris. Flow depth varied during our April 20, 2023 site visit, but we estimated an average of at least +/-2 foot deep of continuous flow with +/-3-foot-deep pools within the on-site portions of the channel. Willow Creek is a perennial tributary to the Tualatin River.

According to ODFW Oregon Fish Habitat Distribution and Barriers online mapping, anadromous winter steelhead (*Oncorhynchus mykiss*) spawning and migration rearing are documented within on-site portions of Willow Creek. However, according to ODFW's Barrier online mapping, several barriers (culverts at NW Walker Road and SW 185th Avenue) and a permanent dam structure near the Willow Creek and Beaverton Creek confluence are mapped downstream of the study area limiting anadromous species from reaching the study area. No fish were observed within the on-site portions of the channel during the April 20, 2023 site visit.

F. Deviation From SWI

According to the DSL- Statewide Wetland Inventory (SWI) map (Figure 4, Appendix A), the wetland and Willow Creek delineated under this study are located in the vicinity of the SWI mapped palustrine forested broad-leaved deciduous wetland with a seasonally flooded water regime (PFO1C) and riverine lower perennial unconsolidated bottom semi-permanently flooded water (R2UBF). Our study generally agrees with the SWI mapping.

G. Mapping Method

The on-site wetland and water boundaries, and sample plots were flagged in the field and their locations were mapped by AKS during the April 20, 2023 site visit using a handheld GPS receiver with submeter accuracy. The wetland boundaries were flagged with orange wire whips, the OHM of Willow Creek was flagged with red wire whips, and the sample plots with pink wire whips. A map illustrating the extent of the delineation study area in relationship to the tax lots is shown on Figure 6, Appendix A. The wetlands and waters delineation maps are included as Figures 7 through 7A in Appendix A.

H. Additional Information

Willow Creek is a perennial ESH mapped stream. Wetland A delineated in the study area is adjacent to Willow Creek; therefore, under state removal-fill law, a state permit is likely required for any amount of removal and/or fill within Wetland A and/or Willow Creek.

According to the 2023 Waters of the United States (WOTUS) regulations, a water with a relatively permanent flow may be considered jurisdictional to the USACE if it has a hydrologic connection to a paragraph (a)(1) water. Willow Creek is a perennial tributary to Beaverton Creek, a tributary to Rock Creek, and ultimately the Tualatin River, a paragraph (a)(1) water. Due to the perennial flow regime and continuous surface connection with the Tualatin River, Willow Creek will likely be determined jurisdictional paragraph (a)(3) tributary. Wetland A delineated in the project area is adjacent to and has a direct surface connection to Willow Creek; therefore, Wetland A may also likely be determined to be jurisdictional to the USACE.

I. Summary of Results and Conclusions

A summary of the features delineated in the study area including the area within the study area, Cowardin, HGM classification, flow regime of non-wetland waters, connection to other waters, and jurisdictional predictions are listed in Table 2 below.

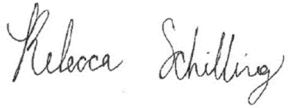
Table 2: Summary of Study Results and Conclusions

Potentially Jurisdictional Feature	Latitude/ Longitude	Size (Acres)	Cowardin Class	HGM Subclass or Flow Regime	Connection to Other Waters	DSL/USACE Predicted Jurisdiction
Wetland A	45.529015, -122.841046	0.21 AC.	PFO/PSS/PEM	Slope	Willow Creek	DSL & USACE
Willow Creek	45.529115, -122.841009	0.11 AC./ 481 LF	NA	Perennial ESH	Beaverton Creek, trib to Tualatin River	DSL & USACE

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.

K. List of Preparers



Rebecca Schilling
Natural Resource Specialist
Fieldwork and Report Preparation



Sonya Templeton
Wetland Scientist
Fieldwork and report QA/QC



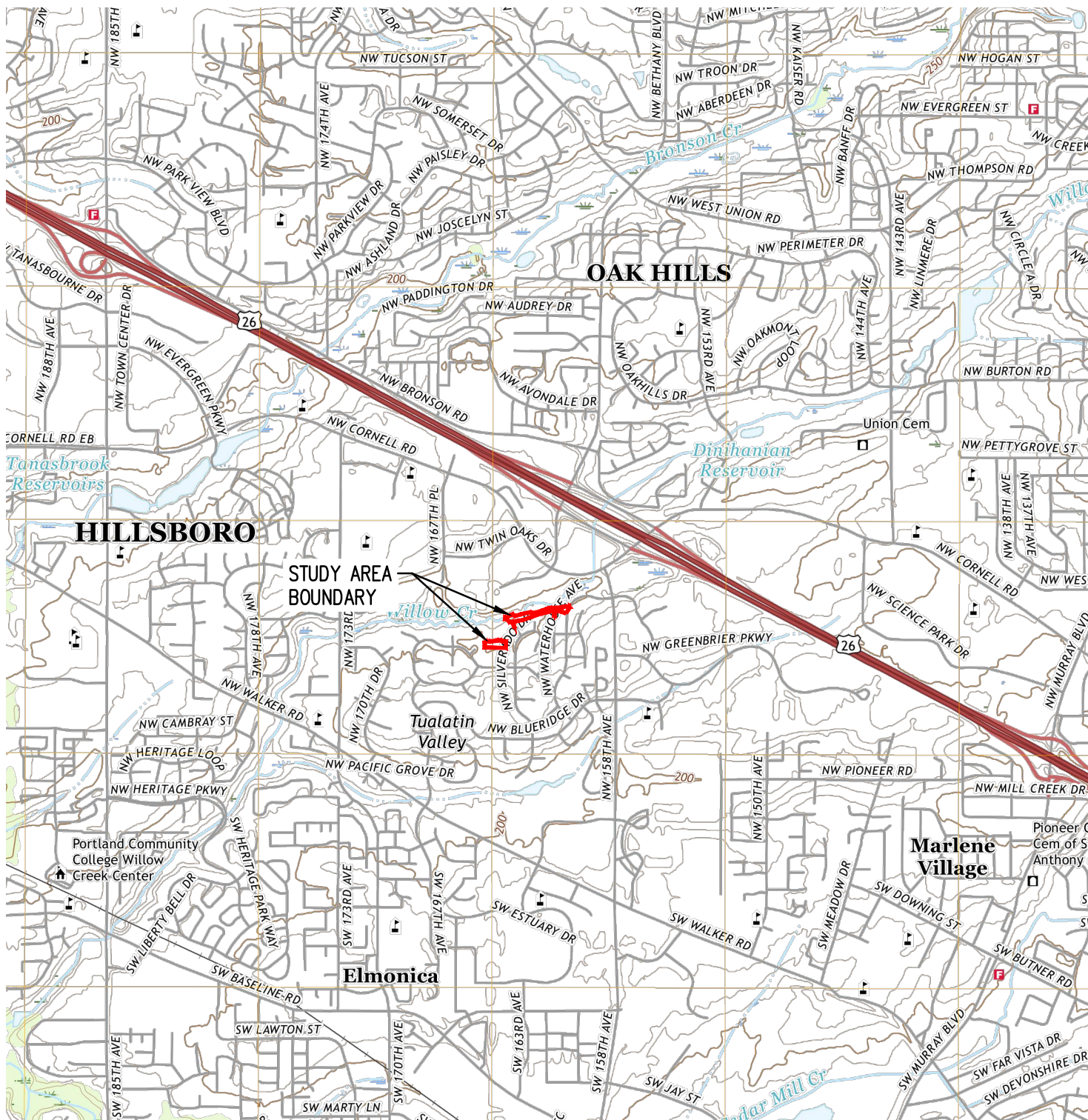
Stacey Reed, PWS
Senior Wetland Scientist
Report QA/QC

Literature Cited and Referenced

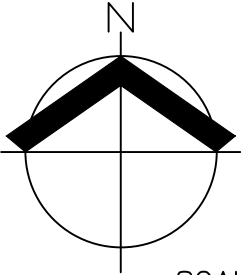
- Adamus, P.R. 2001. *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles*. Salem (OR): Oregon Division of State Lands.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetland and Deepwater Habitats of the United States*. Jamestown (ND): US Fish and Wildlife Service, Northern Prairie Wildlife Research Center.
- DSL. 2014. *Administrative Rules for Wetland Delineation Report Requirements*. Salem (OR): Oregon Department of State Lands. Available at: <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=355> [Accessed April 2023].
- DSL. 2023. *Essential Salmonid Habitat*. Salem (OR): Oregon Department of State Lands. Available at: <https://maps.dsl.state.or.us/esh/> [Accessed April 2023].
- DSL. 2023. *State Wetlands Inventory*. Salem (OR): Oregon Department of State Lands. Available at: <https://maps.dsl.state.or.us/swi/> [Accessed April 2023].
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Wetlands Research Program Technical Report Y-87-1. Vicksburg (MS): US Army Engineer Waterways Experiment Station.
- Hitchcock, C.L., and A. Cronquist. 2018. *Flora of the Pacific Northwest*. Second Edition. Seattle (WA): University of Washington Press.
- NOAA. 2023. *Hillsboro, OR*. Washington (DC): National Oceanic and Atmospheric Administration. Available at: <http://agacis.rcc-acis.org/> [Accessed April 2023].
- NRCS. 2023a. *Official Soil Series Descriptions*. Washington (DC): Natural Resources Conservation Service. Available at: <https://soilseries.sc.egov.usda.gov/osdname.aspx> [Accessed April 2023].
- NRCS. 2023b. *Soil Data Access (SDA) Hydric Soils List: Washington County, Oregon*. Washington (DC): Natural Resources Conservation Service. Available at: <https://www.nrcs.usda.gov/publications/query-by-state.html> [Accessed April 2023].
- NRCS. 2023c. *Web Soil Survey: Hydric Rating by Map Unit – Washington County, Oregon*. Washington (DC): Natural Resources Conservation Service. Available at: <https://www.nrcs.usda.gov/app/> [Accessed April 2023].
- Oregon Map. 2020. *Washington County Assessor's Map 1N 1W 31, 1N 1W 32*. Salem (OR): State of Oregon. Available at: <http://www.ormap.net/> [Accessed April 2023].
- ODFW. 2023. *Oregon Fish Habitat Distribution and Barriers*. Salem (OR): Oregon Department of Fish and Wildlife. Available at: https://nrimp.dfw.state.or.us/FHD_FPB_Viewer/index.html [Accessed April 2023].
- DSL. 2022. *ORWAP and SFAM Map Viewer*. Salem (OR): Oregon Department of State Lands. Available at: https://tools.oregonexplorer.info/OE_HtmlViewer/index.html?viewer=orwap_sfam [Accessed April 2023].

-
- PSMFC.2023. *StreamNet*. Portland (OR): Pacific States Marine Fisheries Commission. Available at: <https://www.streamnet.org/> [Accessed April 2023].
- Schoeneberger, P.J., D.A. Wysocki, E.C. Benham, and Soil Survey Staff, eds. 2012. *Field Book for Describing and Sampling Soils*. Version 3.0. Lincoln (NE): Natural Resources Conservation Service, National Soil Survey Center.
- USACE. 2020. *National Wetland Plant List*. Version 3.5. Washington (DC): US Army Corps of Engineers. Available at: <http://wetland-plants.usace.army.mil/> [Accessed April 2023].
- USDA & NRCS. 2023. *PLANTS Database: Plant List of Accepted Nomenclature, Taxonomy, and Symbols*. Washington (DC): Natural Resources Conservation Service. Available at: <https://plants.sc.egov.usda.gov/home> [Accessed April 2023].
- USGS. 2012. *The National Map: US Topo*. Reston (VA): US Geological Survey National Geospatial Program. Available at: <https://apps.nationalmap.gov/downloader/#/> [Accessed April 2023].
- Vasilas, L.M., G.W. Hurt, and J.F. Berkowitz, eds. 2018. *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils*. Version 8.2. Washington (DC): Natural Resources Conservation Service.
- Wakeley, J.S., R.W. Lichvar, and C.V. Noble, eds. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region*. Version 2.0. ERDC/EL TR-10-3. Vicksburg (MS): US Army Engineer Research and Development Center, US Army Corps of Engineers.
- X-Rite. 2000. *Munsell Soil Color Charts*. Year 2000 revised washable edition. Grand Rapids (MI): X-Rite.

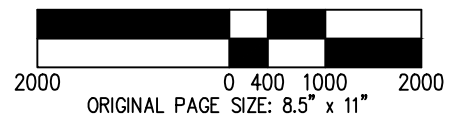
Appendix A: Maps



USGS 7.5' TOPOGRAPHIC SERIES
 QUADRANGLE: LINNTON, OR (2020)



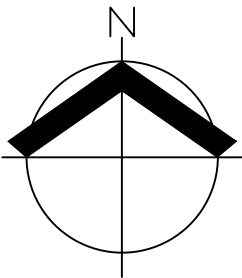
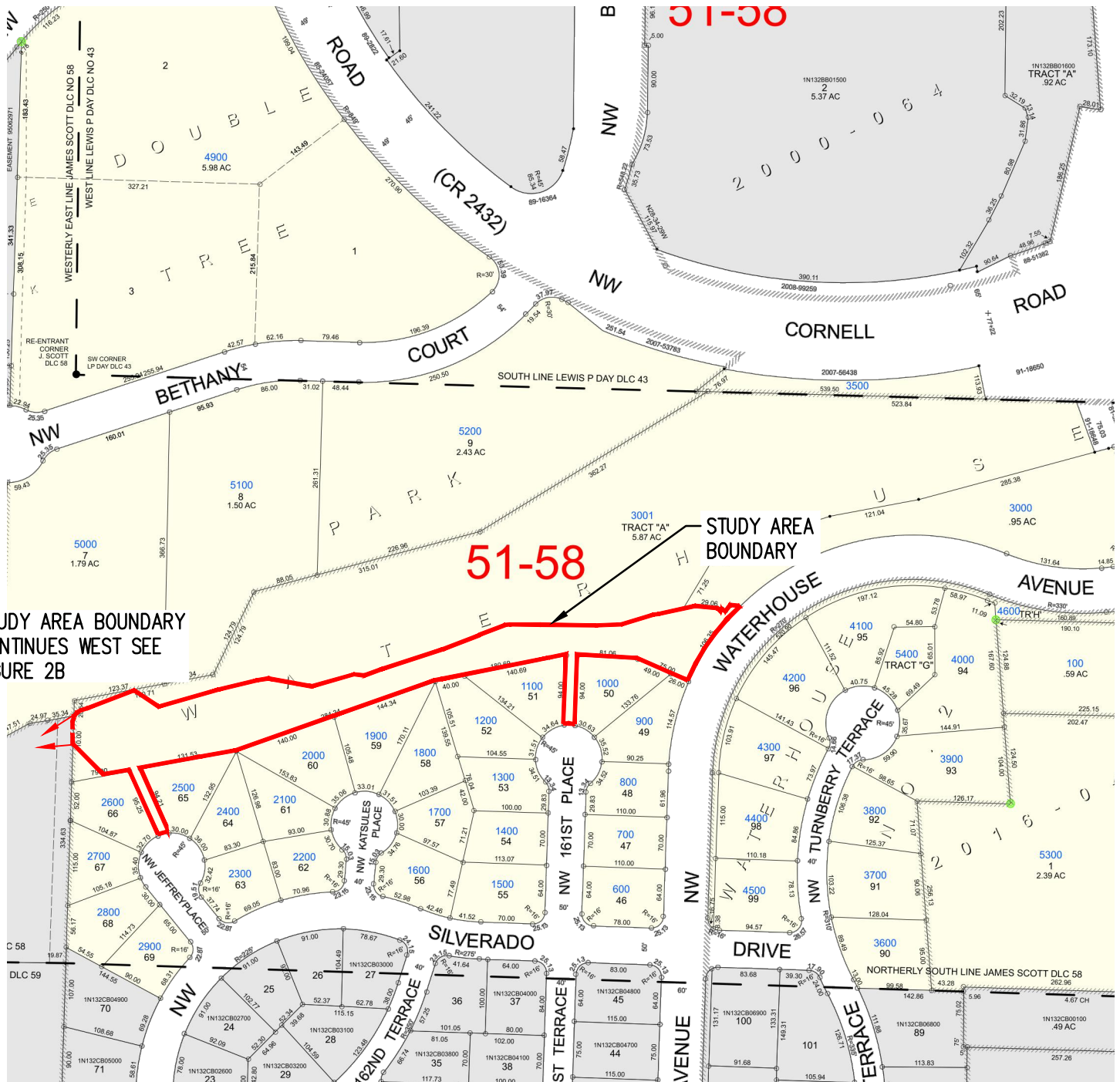
SCALE: 1" = 2000 FEET



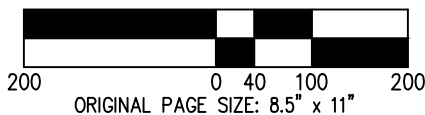
DATE: 07/10/2023

USGS VICINITY MAP THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		FIGURE 1
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: GPM CHKD: RAS AKS JOB: 8015-01





SCALE: 1" = 200 FEET



TAX MAP (MAP 1N 1W 32BC)
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

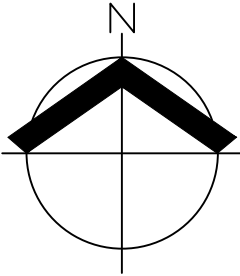
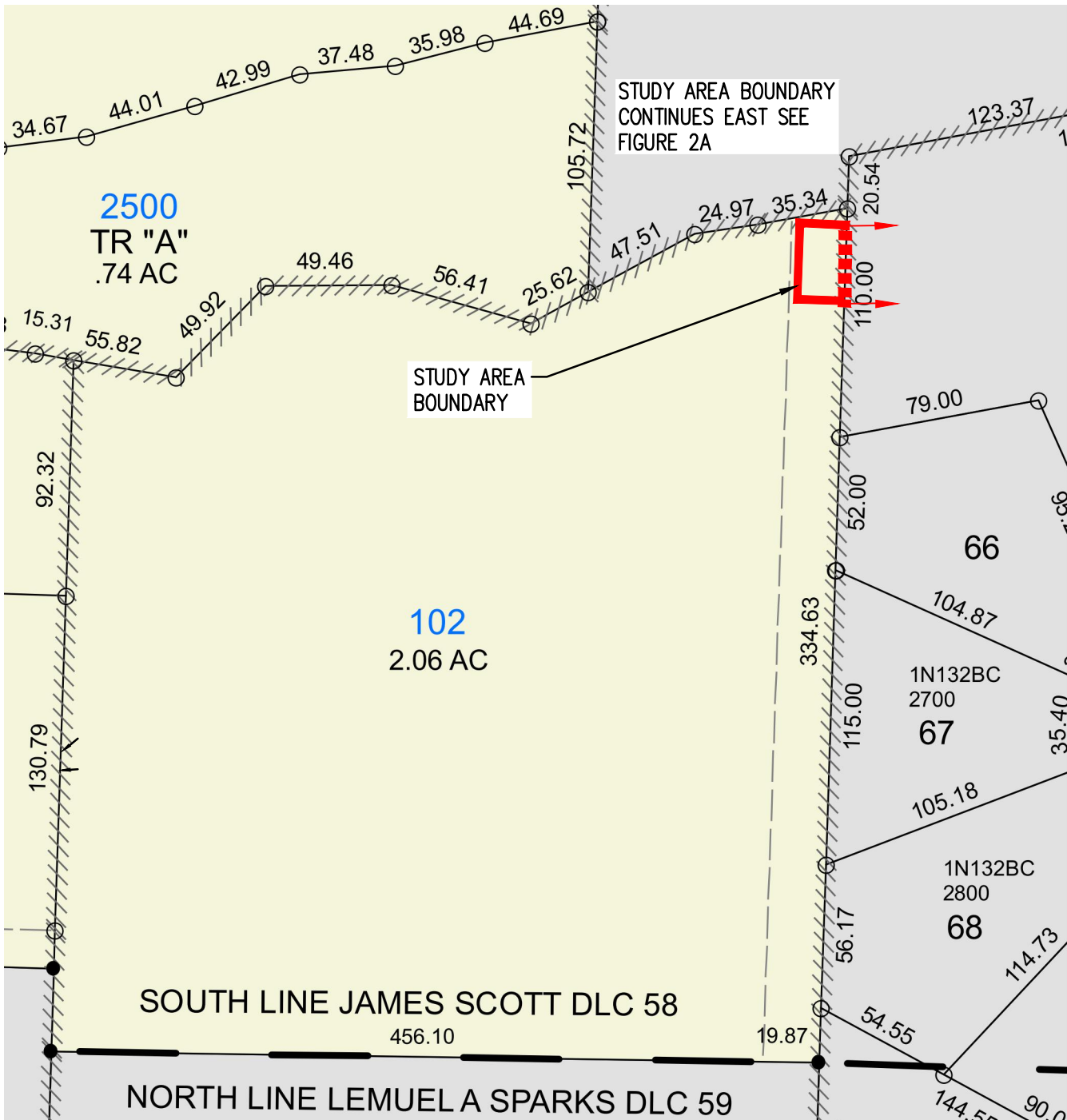
AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM



DATE: 07/10/2023

FIGURE
2A

DRWN: GPM
CHKD: RAS
AKS JOB:
8015-01



WASHINGTON COUNTY
 PORTION OF TAX LOT 102
 TAX MAP 1N 1W 31AD

DATE: 07/10/2023

SCALE: 1" = 60 FEET

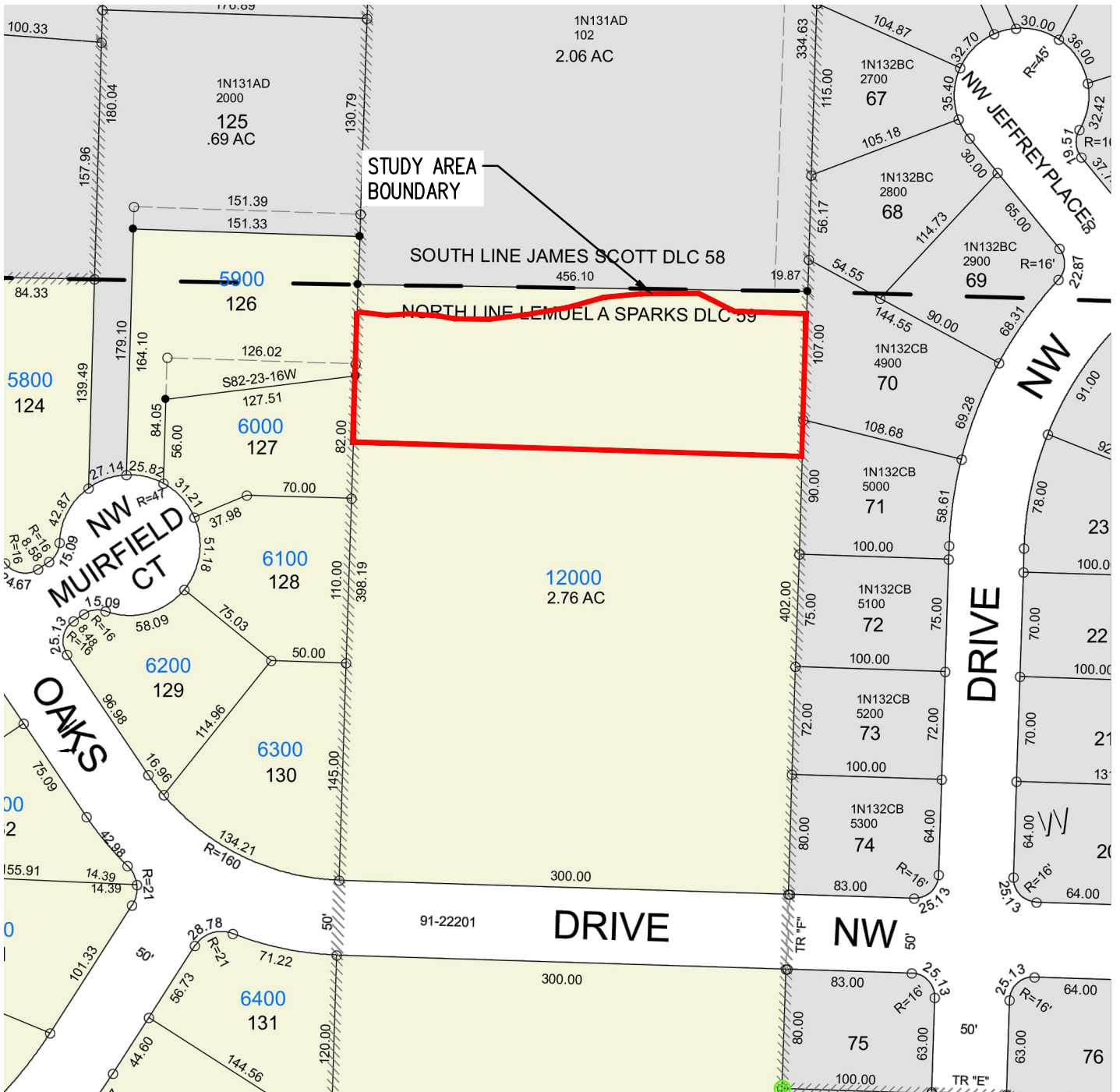


ORIGINAL PAGE SIZE: 8.5" x 11"

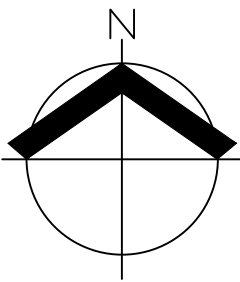
TAX MAP (MAP 1N 1W 31AD) THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT	
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM	



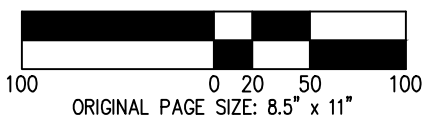
FIGURE 2B
DRWN: GPM CHKD: RAS
AKS JOB: 8015-01



WASHINGTON COUNTY
 PORTION OF TAX LOT 12000
 TAX MAP 1N 1W 31DA



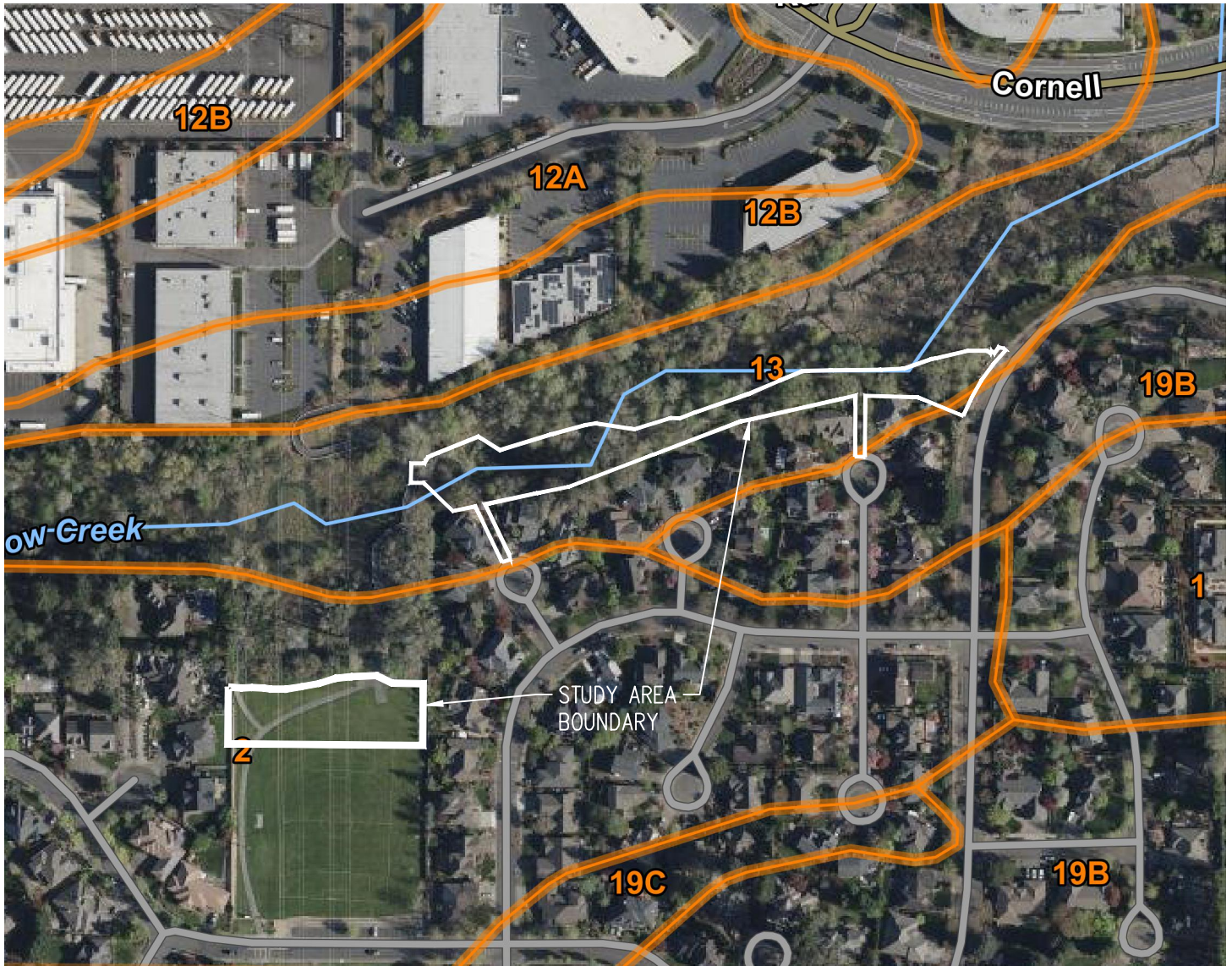
SCALE: 1" = 100 FEET



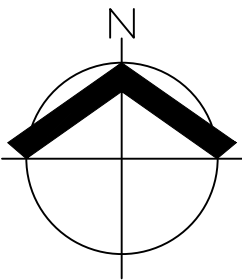
DATE: 07/10/2023

TAX MAP (MAP 1N 1W 31DA)		FIGURE
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		2C
AKS ENGINEERING & FORESTRY, LLC		DRWN: GPM
12965 SW HERMAN RD, STE 100		CHKD: RAS
TUALATIN, OR 97062		AKS JOB:
503.563.6151 WWW.AKS-ENG.COM		8015-01



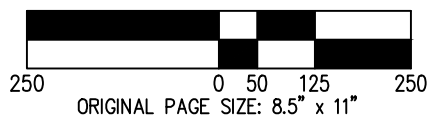


MAP UNIT SYMBOL	MAP UNIT NAME
2	AMITY SILT LOAM; NON-HYDRIC
13	COVE SILTY CLAY LOAM; HYDRIC
19B	HELVETIA SILT LOAM: 2% TO 7% SLOPES; NON-HYDRIC



NRCS WEB SOIL SURVEY FOR
WASHINGTON COUNTY

SCALE: 1" = 250 FEET



DATE: 07/10/2023

NRCS SOIL SURVEY MAP
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

FIGURE
3

AKS ENGINEERING & FORESTRY, LLC
12965 SW HERMAN RD, STE 100
TUALATIN, OR 97062
503.563.6151 WWW.AKS-ENG.COM



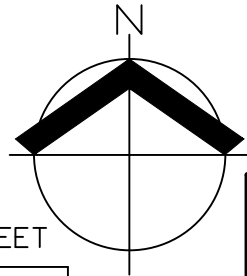
DRWN: GPM
CHKD: RAS
AKS JOB:
8015-01



Wetlands	
	Estuarine and Marine Deepwater
	Estuarine and Marine Wetland
	Freshwater Emergent Wetland
	Freshwater Forested/Shrub Wetland
	Freshwater Pond
	Lake
	Riverine

DEPARTMENT OF STATE LANDS
STATEWIDE WETLANDS INVENTORY

DATE: 07/10/2023



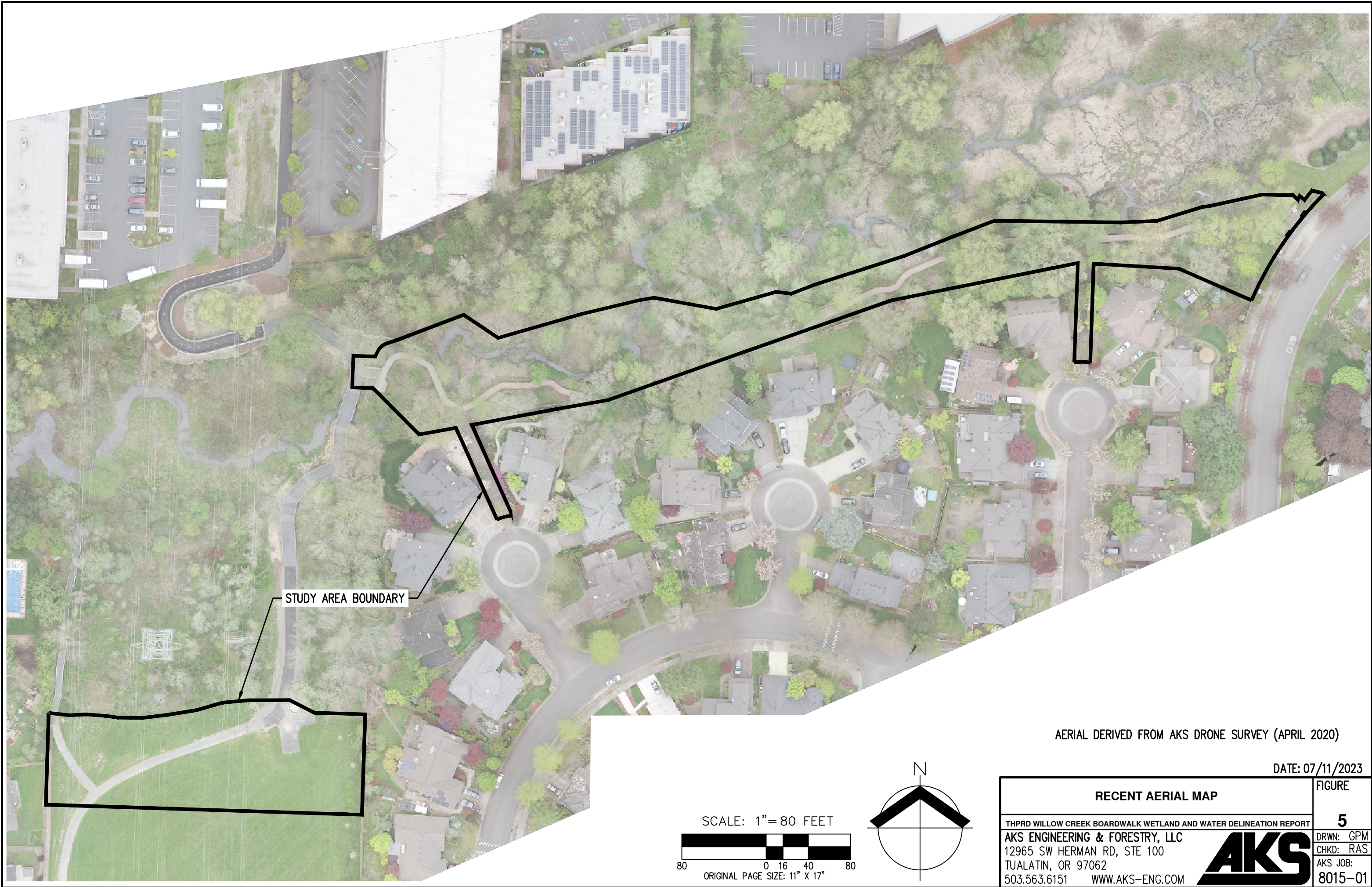
SCALE: 1" = 200 FEET



200 0 40 100 200
ORIGINAL PAGE SIZE: 8.5" x 11"

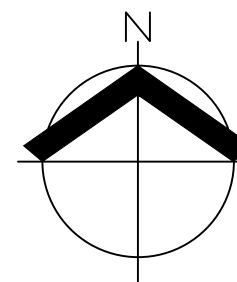
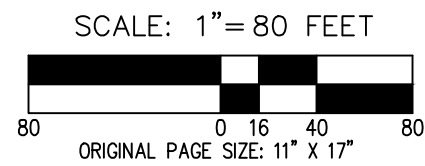
STATEWIDE WETLANDS INVENTORY MAP THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		FIGURE 4
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: GPM CHKD: RAS AKS JOB: 8015-01





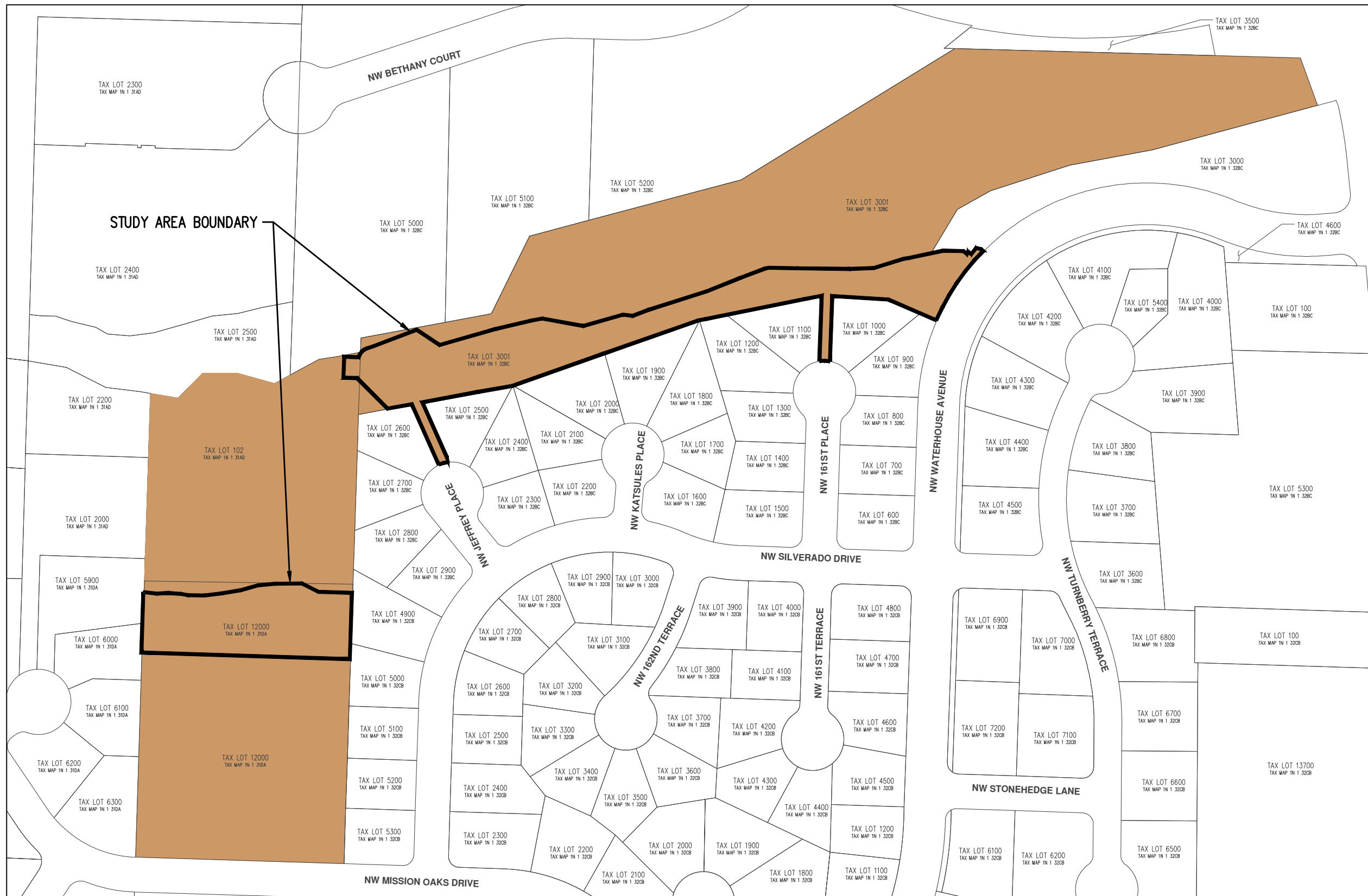
AERIAL DERIVED FROM AKS DRONE SURVEY (APRIL 2020)

DATE: 07/11/2023



RECENT AERIAL MAP		FIGURE
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		5
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		DRWN: GPM CHKD: RAS AKS JOB: 8015-01





DATE: 07/11/2023

TAX MAP REFERENCE OF STUDY AREA BOUNDARY

FIGURE

6

THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151 WWW.AKS-ENG.COM

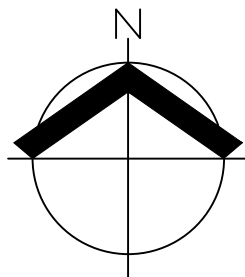


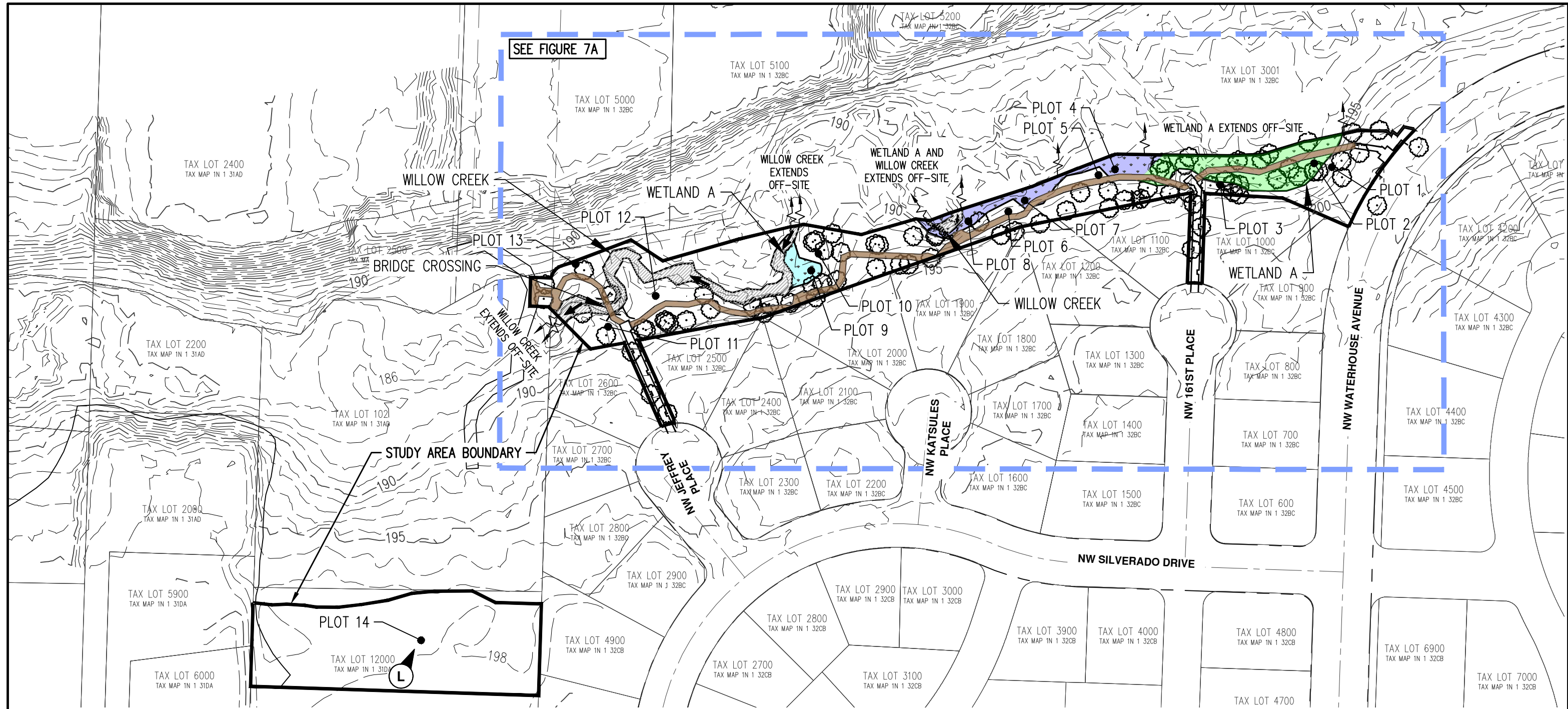
DRWN: GPM
 CHKD: RAS
 AKS JOB:
 8015-01

SCALE: 1" = 150 FEET



ORIGINAL PAGE SIZE: 11" X 17"





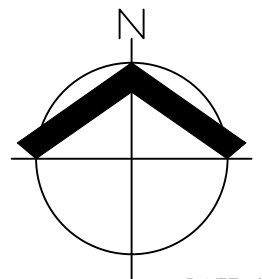
LEGEND (COLOR COPY):

- TOTAL ON-SITE WETLAND A AREA: 9,137 SF± (0.21 ACRES±)
- PEM/SLOPE WETLAND AREA: 955 SF± (0.02 ACRES±)
- PFO/SLOPE WETLAND AREA: 5,014 SF± (0.12 ACRES±)
- PSS/SLOPE WETLAND AREA: 3,168 SF± (0.07 ACRES±)
- TOTAL ON-SITE WILLOW CREEK ESH AREA: 4,908 SF± (0.11 ACRES±) / 481 LF±
- PHOTO POINT LOCATION AND ORIENTATION

WETLAND AND WATER BOUNDARIES AND PLOT LOCATIONS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC ON APRIL 20, 2023 AND WERE LOCATED WITH SUB-METER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

1 FOOT GROUND CONTOURS, EXISTING CONDITIONS, TREE SURVEY OF TREES >6" DBH, AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY WITH SUBMETER ACCURACY ON APRIL 26-28, 2023. STUDY AREA BOUNDARY DETERMINED PRIOR TO FIELDWORK BASED ON EXTENT OF PROJECT AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY 2020.

SCALE: 1"=100 FEET



DATE: 07/11/2023

WETLAND AND WATER DELINEATION OVERVIEW MAP

FIGURE

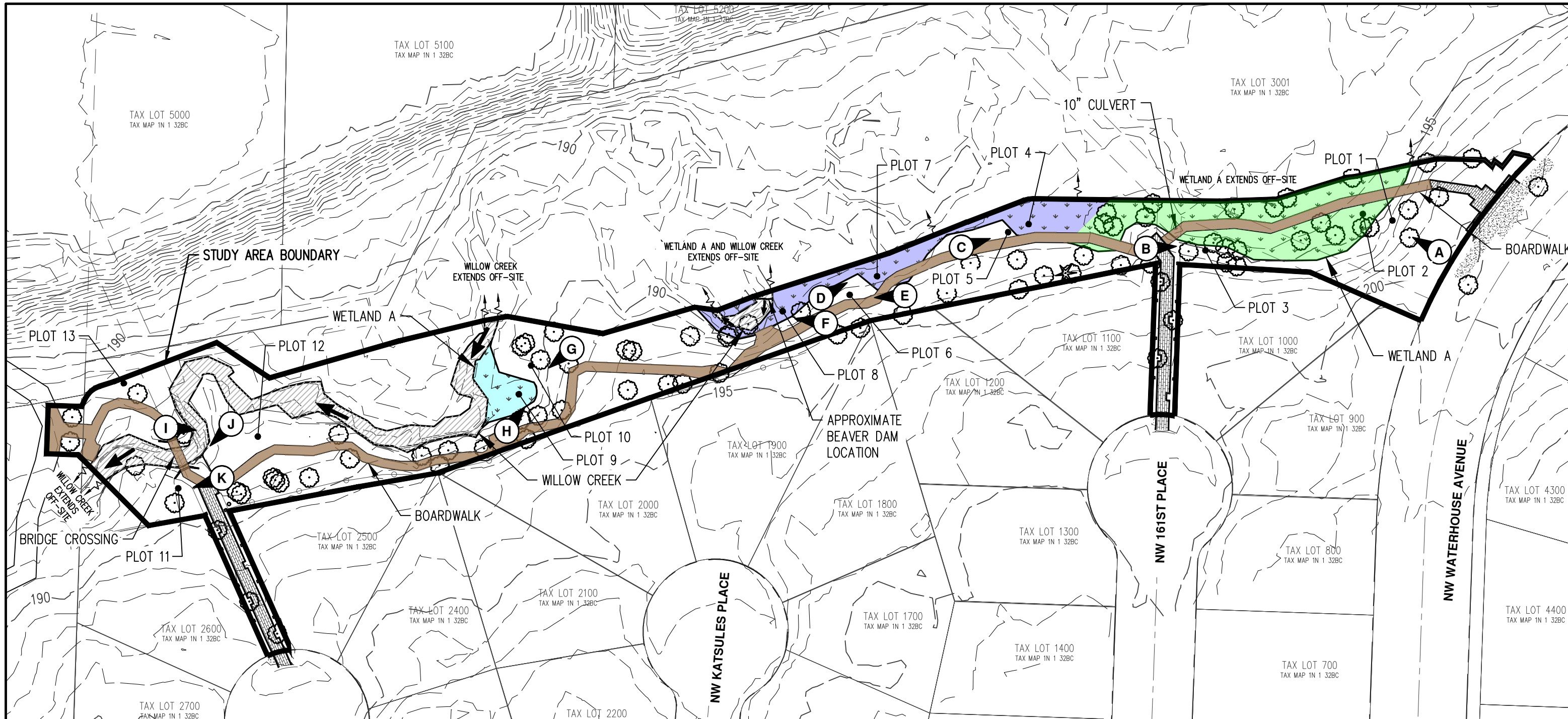
7

THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT

AKS ENGINEERING & FORESTRY, LLC
 12965 SW HERMAN RD, STE 100
 TUALATIN, OR 97062
 503.563.6151 WWW.AKS-ENG.COM



DRWN: GPM
 CHKD: RAS
 AKS JOB:
 8015-01

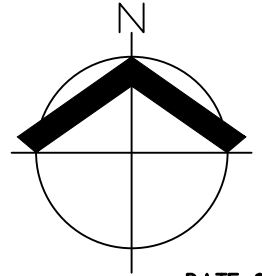
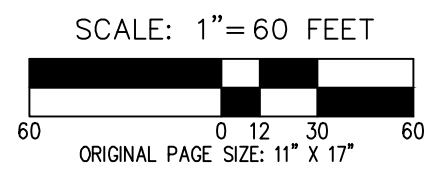


LEGEND (COLOR COPY):

- TOTAL ON-SITE WETLAND A AREA: 9,137 SF± (0.21 ACRES±)
- PEM/SLOPE WETLAND AREA: 955 SF± (0.02 ACRES±)
- PFO/SLOPE WETLAND AREA: 5,014 SF± (0.12 ACRES±)
- PSS/SLOPE WETLAND AREA: 3,168 SF± (0.07 ACRES±)
- TOTAL ON-SITE WILLOW CREEK ESH AREA: 4,908 SF± (0.11 ACRES±) / 481 LF±
- PHOTO POINT LOCATION AND ORIENTATION

WETLAND AND WATER BOUNDARIES AND PLOT LOCATIONS SHOWN WERE DELINEATED BY AKS ENGINEERING & FORESTRY, LLC ON APRIL 20, 2023 AND WERE LOCATED WITH SUB-METER ACCURACY USING A TRIMBLE GEO 7X HANDHELD GPS RECEIVER.

1 FOOT GROUND CONTOURS, EXISTING CONDITIONS, TREE SURVEY OF TREES >6" DBH, AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY WITH SUBMETER ACCURACY ON APRIL 26-28, 2023. STUDY AREA BOUNDARY DETERMINED PRIOR TO FIELDWORK BASED ON EXTENT OF PROJECT AND PROPERTY BOUNDARIES DERIVED FROM AKS LAND SURVEY 2020.



DATE: 07/11/2023

WETLAND AND WATER DELINEATION MAP		FIGURE 7A
THPRD WILLOW CREEK BOARDWALK WETLAND AND WATER DELINEATION REPORT		DRWN: GPM CHKD: RAS AKS JOB: 8015-01
AKS ENGINEERING & FORESTRY, LLC 12965 SW HERMAN RD, STE 100 TUALATIN, OR 97062 503.563.6151 WWW.AKS-ENG.COM		

DWG: 8015-01_MDR_EXCOND | FIGURE 7A

Appendix B: Wetland Determination Data Forms

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 1
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <5
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52821974 Long: -122.8423819 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Plot located east of Wetland A and south of the boardwalk.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Liquidambar styraciflua</u>	<u>70%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
70% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Cornus alba</u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>	FACW species <u>15</u> x 2 = <u>30</u>	
2. <u>Rubus armeniacus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FAC species <u>98</u> x 3 = <u>294</u>	
3. <u>Liquidambar styraciflua</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	FACU species <u>2</u> x 4 = <u>8</u>	
4. <u>Rosa nutkana</u>	<u>3%</u>	<u>No</u>	<u>FAC</u>	UPL species <u>0</u> x 5 = <u>0</u>	
5. <u>Symphoricarpos albus</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	Column Totals: <u>115</u> (A) <u>332</u> (B)	
30% = Total Cover				Prevalence Index = B/A = <u>2.89</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Poa species</u>	<u>15%</u>	<u>Yes</u>	<u>FAC*</u>		1 - Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		X 2 - Dominance Test is >50%
3. _____	_____	_____	_____		X 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
15% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>85%</u>				

Remarks:
 *=Assumed FAC.

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	10YR 3/2	100					SiL	
8-18	10YR 4/2	100					SiL	

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): <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
--	--

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No X _____
--	--

Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes _____ No X _____ Depth (inches): <u>N/A</u> Water Table Present? Yes _____ No X _____ Depth (inches): <u>>18</u> Saturation Present? Yes _____ No X _____ Depth (inches): <u>>18</u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No X _____
--	--

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 2
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52823045 Long: -122.84245290 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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 _____			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Wetland A - Eastern end of study area.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	55%	Yes	FACW		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Salix lucida</u>	20%	Yes	FACW	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
75% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>5</u> x 1 = <u>5</u>	
1. <u>Crataegus douglasii</u>	7%	Yes	FAC	FACW species <u>75</u> x 2 = <u>150</u>	
2. <u>Rosa nutkana</u>	2%	NO	FAC	FAC species <u>47</u> x 3 = <u>141</u>	
3. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
4. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____	_____	_____	_____	Column Totals: <u>127</u> (A) <u>296</u> (B)	
9% = Total Cover				Prevalence Index = B/A = <u>2.33</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Holcus lanatus</u>	35%	Yes	FAC		<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u>Carex obnupta</u>	5%	No	OBL		<u>X</u> <u>2</u> - Dominance Test is >50%
3. <u>Epilobium species</u>	3%	No	FAC*		<u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		<u>5</u> - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
43% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>57%</u>			Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:
 *= Assumed FAC

SOIL	Sampling Point: 2
-------------	--------------------------

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		
0-9	10YR 3/1	95	7.5YR 4/6	5	C	M/PL	SiCL	
9-16	10YR 3/1	80	7.5YR 4/4	20	C	M/PL	SiCL	

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):

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <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) |

Indicators for Problematic Hydric Soils³:

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

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)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches):	N/A
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches):	12
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches):	8

Wetland

Hydrology Present? Yes No _____

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 3
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <5
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52816325 Long: -122.84284310 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Plot located approximately 5 feet from boardwalk.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Liquidambar styraciflua</u>	<u>25%</u>	<u>Yes</u>	<u>FAC</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <u>Fraxinus latifolia</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
4. _____	_____	_____	_____		
<u>45%</u> = Total Cover				Prevalence Index worksheet:	
Sapling/Shrub Stratum (Plot Size: 10' r or _____)					
1. <u>Fraxinus latifolia</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____	
2. <u>Crataegus douglasii</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>	OBL species <u>0</u> x 1 = <u>0</u>	
3. <u>Frangula purshiana</u>	<u>1%</u>	<u>No</u>	<u>FAC</u>	FACW species <u>31</u> x 2 = <u>62</u>	
4. _____	_____	_____	_____	FAC species <u>41</u> x 3 = <u>123</u>	
5. _____	_____	_____	_____	FACU species <u>10</u> x 4 = <u>40</u>	
<u>16%</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
Herb Stratum (Plot Size: 5' r or _____)				Column Totals: <u>82</u> (A) <u>225</u> (B)	
1. <u>Polystichum munitum</u>	<u>10%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index = B/A = <u>2.74</u>	
2. <u>Vicia species</u>	<u>5%</u>	<u>No</u>	<u>FAC*</u>	Hydrophytic Vegetation Indicators:	
3. <u>Holcus lanatus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
4. <u>Trientalis latifolia</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>		<u>X</u> <u>2</u> - Dominance Test is >50%
5. _____	_____	_____	_____		<u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹
6. _____	_____	_____	_____		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
7. _____	_____	_____	_____		<u>5</u> - Wetland Non-Vascular Plants ¹
8. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
9. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
10. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
11. _____	_____	_____	_____		
<u>21%</u> = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>79%</u>					

Remarks:
 * =Assumed FAC. Twigs and leaf litter covering bareground.

SOIL	Sampling Point: 3
-------------	--------------------------

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	10YR 4/3	100					SiL	
7-13	10YR 4/3	95	7.5YR 4/6	5	C	M	SiL	

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"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
<p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>	

Restrictive Layer (if present):	Hydric Soil Present?
Type: _____	Yes _____ No X
Depth (inches): _____	

Remarks:

HYDROLOGY

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

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes _____ No X Depth (inches): <u>N/A</u>	Yes _____ No X
Water Table Present? Yes _____ No X Depth (inches): <u>>13</u>	
Saturation Present? Yes _____ No X Depth (inches): <u>>13</u> (includes capillary fringe)	

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualtin Hills Parks & Recreation District State: Oregon Sampling Point: 4
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Sl. Concave Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52819924 Long: -122.84327286 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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 _____			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Wetland A - eastern end of study area.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
0% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Rosa nutkana</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>	FACW species <u>10</u> x 2 = <u>20</u>	
2. <u>Physocarpus capitatus</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>	FAC species <u>40</u> x 3 = <u>120</u>	
3. <u>Cornus nuttallii</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>	FACU species <u>5</u> x 4 = <u>20</u>	
4. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____	_____	_____	_____	Column Totals: <u>55</u> (A) <u>160</u> (B)	
30% = Total Cover				Prevalence Index = B/A = <u>2.91</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Tolmiea menziesii</u>	<u>15%</u>	<u>Yes</u>	<u>FAC</u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u>Carex leptopoda</u>	<u>10%</u>	<u>Yes</u>	<u>FAC</u>		<u>X</u> <u>2</u> - Dominance Test is >50%
3. _____	_____	_____	_____		<u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		<u>5</u> - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
25% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>75%</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

SOIL	Sampling Point: <u>4</u>
-------------	---------------------------------

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	10YR 3/2	100					SiCL	
8-12	10YR 3/2	95	7.5YR 3/4	5	C	M/PL	SiCL	
12-16	2.5Y 4/1	90	7.5YR 4/4	10	C	M/PL	SiCL	

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

<p>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</p> <p>___ Histosol (A1) ___ Sandy Redox (S5) ___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) ___ Depleted Matrix (F3) ___ Thick Dark Surface (A12) <input checked="" type="checkbox"/> Redox Dark Surface (F6) ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7) ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p>___ 2 cm Muck (A10) ___ Red Parent Material (TF2) ___ Very Shallow Dark Surface (TF12) ___ Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
---	--

<p>Restrictive Layer (if present):</p> <p>Type: _____ Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____</p>
---	---

Remarks:

HYDROLOGY

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

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u>N/A</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>11</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>7</u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____</p>
--	---

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 5
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52820901 Long: -122.84335461 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Located higher in elevation than Plot 4 and 2 feet from boardwalk.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
40% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Symphoricarpos albus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	FACW species <u>40</u> x 2 = <u>80</u>	
2. <u>Amelanchier alnifolia</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u>48</u> x 3 = <u>144</u>	
3. <u>Rosa nutkana</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	FACU species <u>40</u> x 4 = <u>160</u>	
4. <u>Rubus armeniacus</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____	_____	_____	_____	Column Totals: <u>128</u> (A) <u>384</u> (B)	
60% = Total Cover				Prevalence Index = B/A = <u>3.00</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Tolmiea menziesii</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Carex leptopoda</u>	<u>8%</u>	<u>Yes</u>	<u>FAC</u>		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
28% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>72%</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

SOIL	Sampling Point: 5
-------------	--------------------------

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

Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-9	10YR 3/2	100					SiL	
9-15	10YR 3/2	95	7.5YR 4/6	5	C	M/PL	SiCL	
15-16	10YR 4/1	90	7.5YR 4/6	10	C	M/PL	SiCL	

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)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
--	---

Remarks:

HYDROLOGY

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

Field Observations:	Wetland Hydrology Present?
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): N/A	Yes _____ No <input checked="" type="checkbox"/>
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): >16	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): >16 (includes capillary fringe)	

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 6
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52807449 Long: -122.84368888 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix species</u>	10%	Yes	FAC*
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	10% = Total Cover		
Sapling/Shrub Stratum (Plot Size: 10' r or _____)			
1. <u>Spiraea douglasii</u>	15%	Yes	FACW
2. <u>Symphoricarpos albus</u>	10%	Yes	FACU
3. <u>Fraxinus latifolia</u>	5%	No	FACW
4. <u>Quercus garryana</u>	3%	No	FACU
5. _____	_____	_____	_____
	33% = Total Cover		
Herb Stratum (Plot Size: 5' r or _____)			
1. <u>Poa species</u>	15%	Yes	FAC*
2. <u>Geum macrophyllum</u>	10%	Yes	FAC
3. <u>Tolmiea menziesii</u>	10%	Yes	FAC
4. <u>Carex leptopoda</u>	3%	No	FAC
5. <u>Polystichum munitum</u>	3%	No	FACU
6. <u>Taraxacum officinale</u>	3%	No	FACU
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	44% = Total Cover		
Woody Vine Stratum (Plot Size: 10' r or _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
	0% = Total Cover		
% Bare Ground in Herb Stratum	<u>56%</u>		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 83% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>20</u>	x 2 =	<u>40</u>
FAC species	<u>48</u>	x 3 =	<u>144</u>
FACU species	<u>19</u>	x 4 =	<u>76</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column Totals:	<u>87</u> (A)		<u>260</u> (B)
Prevalence Index = B/A =			<u>2.99</u>

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation _____

X 2 - Dominance Test is >50% _____

X 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 Vegetation (Explain)¹ _____

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:
 *=Assumed FAC. Twigs and leaf litter covering bareground.

SOIL	Sampling Point: 6
-------------	--------------------------

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	10YR 3/2	100					SiL	
6-16	10YR 4/3	99	5YR 4/6	1	C	PL	SiCL	

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

<p>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</p> <p><input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> 2 cm Muck (A10)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
--	--

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present?</p> <p>Yes _____ No <u> X </u></p>
---	---

Remarks:

HYDROLOGY

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

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u></p> <p>Water Table Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u></p> <p>Saturation Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present?</p> <p>Yes _____ No <u> X </u></p>
--	---

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 7
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52810312 Long: -122.84363601 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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 _____			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Wetland A

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____	0% = Total Cover				Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>0</u> x 1 = <u>0</u>	
1. _____	_____	_____	_____	FACW species <u>40</u> x 2 = <u>80</u>	
2. _____	_____	_____	_____	FAC species <u>32</u> x 3 = <u>96</u>	
3. _____	_____	_____	_____	FACU species <u>0</u> x 4 = <u>0</u>	
4. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____	_____	_____	_____	Column Totals: <u>72</u> (A) <u>176</u> (B)	
_____	0% = Total Cover			Prevalence Index = B/A = <u>2.44</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u>Schedonorus arundinaceus</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		<u>X</u> <u>2</u> - Dominance Test is >50%
3. <u>Juncus effusus</u>	<u>10%</u>	<u>Yes</u>	<u>FACW</u>		<u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹
4. <u>Epilobium species</u>	<u>5%</u>	<u>No</u>	<u>FAC*</u>		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Rumex crispus</u>	<u>5%</u>	<u>No</u>	<u>FAC</u>		<u>5</u> - Wetland Non-Vascular Plants ¹
6. <u>Geum macrophyllum</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____	72% = Total Cover				
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____	0% = Total Cover				
% Bare Ground in Herb Stratum <u>28%</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:
 *= Assumed FAC.

SOIL	Sampling Point: 7
-------------	--------------------------

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	10YR 3/2	100					SiL	
8-16	2.5Y 4/1	90	7.5YR 4/4	10	C	M	SiCL	

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):

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input checked="" 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) |

Indicators for Problematic Hydric Soils³:

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

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)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): N/A
 Water Table Present? Yes No _____ Depth (inches): 10
 Saturation Present? Yes No _____ Depth (inches): 7
 (includes capillary fringe)

Wetland

Hydrology Present? Yes No _____

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 8
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52803887 Long: -122.84386198 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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 _____			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Wetland A

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	10%	Yes	FACW		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Crataegus douglasii</u>	10%	Yes	FAC	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
20% = Total Cover					Total % Cover of: _____ Multiply by: _____
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				OBL species <u>0</u> x 1 = <u>0</u>	
1. <u>Salix lucida</u>	50%	Yes	FACW	FACW species <u>68</u> x 2 = <u>136</u>	
2. _____	_____	_____	_____	FAC species <u>10</u> x 3 = <u>30</u>	
3. _____	_____	_____	_____	FACU species <u>2</u> x 4 = <u>8</u>	
4. _____	_____	_____	_____	UPL species <u>0</u> x 5 = <u>0</u>	
5. _____	_____	_____	_____	Column Totals: <u>80</u> (A) <u>174</u> (B)	
50% = Total Cover				Prevalence Index = B/A = <u>2.18</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Phalaris arundinacea</u>	5%	Yes	FACW		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Epilobium ciliatum</u>	3%	No	FACW		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Lapsana communis</u>	2%	No	FACU		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
10% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum	<u>90%</u>			Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

SOIL	Sampling Point: 8
-------------	--------------------------

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	10YR 3/2	100					SiCL	
8-16	10YR 3/1	95	7.5YR 4/4	5	C	M/PL	SiCL	

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):

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <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) |

Indicators for Problematic Hydric Soils³:

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

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)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches):	N/A
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches):	12
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches):	7

Wetland

Hydrology Present? Yes No _____

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 9
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Floodplain Terrace Local relief (concave, convex, none): Concave Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52788147 Long: -122.84450557 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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 _____			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Wetland A

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>15%</u>	<u>Yes</u>	<u>FACW</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>15%</u> = Total Cover					
Sapling/Shrub Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:	
1. <u>Rosa nutkana</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Fraxinus latifolia</u>	<u>3%</u>	<u>No</u>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>49</u> x 2 = <u>98</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>1</u> x 4 = <u>4</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>55</u> (A) <u>117</u> (B) Prevalence Index = B/A = <u>2.13</u>	
3. <u>Rubus leucodermis</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>9%</u> = Total Cover					
Herb Stratum (Plot Size: 5' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. <u>Phalaris arundinacea</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>		<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Trientalis latifolia</u>	<u>1%</u>	<u>No</u>	<u>FACW</u>		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____		<input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>31%</u> = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>69%</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	10YR 3/1	98	7.5YR 4/4	2	C	M	SiCL	
7-16	10YR 3/1	90	7.5YR 3/3	10	C	M/PL	SiCL	
16-19	10YR 3/1	80	10YR 4/6	20	C	M	SiCL	

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):

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <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) |

Indicators for Problematic Hydric Soils³:

- | |
|---|
| <input type="checkbox"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks) |

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)

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

Secondary Indicators (2 or more required)

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

Field Observations:

Surface Water Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1</u>
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>surface</u>
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>surface</u>

Wetland
Hydrology Present? Yes No _____

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

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 10
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <5
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52793423 Long: -122.84446721 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Located higher in elevation than Plot 9.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus latifolia</u>	30%	Yes	FACW
2. <u>Quercus garryana</u>	30%	Yes	FACU
3. _____	_____	_____	_____
4. _____	_____	_____	_____
	60% = Total Cover		
Sapling/Shrub Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Amelanchier alnifolia</u>	15%	Yes	FACU
2. <u>Symphoricarpos albus</u>	15%	Yes	FACU
3. <u>Acer circinatum</u>	10%	Yes	FAC
4. <u>Rubus parviflorus</u>	5%	No	FACU
5. <u>Rubus armeniacus</u>	4%	No	FAC
	49% = Total Cover		
Herb Stratum (Plot Size: 5' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	0% = Total Cover		
Woody Vine Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rubus ursinus</u>	30%	Yes	FACU
2. <u>Hedera helix</u>	3%	No	FACU
	33% = Total Cover		
% Bare Ground in Herb Stratum	100%		

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 0 x 1 = 0
 FACW species 30 x 2 = 60
 FAC species 14 x 3 = 42
 FACU species 98 x 4 = 392
 UPL species 0 x 5 = 0
 Column Totals: 142 (A) 494 (B)
 Prevalence Index = B/A = 3.48

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 Vegetation (Explain)¹

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:
 Twigs and leaf litter covering bareground.

SOIL	Sampling Point: 10
-------------	---------------------------

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		
0-13	10YR 3/2	100					SiL	
13-16	10YR 3/2	95	10YR 4/6	5	C	M	SiL	

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): <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
--	--

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <u> X </u>
--	--

Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u> Water Table Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u> Saturation Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u> X </u>
---	--

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualtin Hills Parks & Recreation District State: Oregon Sampling Point: 11
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52770810 Long: -122.84531272 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the Sampled Area within a Wetland?	Yes _____	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes _____	No <u>X</u>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:
 Plot located several feet higher in elevation than Willow Creek with no floodplain connectivity.

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>20%</u>	<u>Yes</u>	<u>FACW</u>		Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. _____	_____	_____	_____		
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)	
<u>20%</u> = Total Cover					
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				Prevalence Index worksheet:	
1. <u>Cornus nuttallii</u>	<u>30%</u>	<u>Yes</u>	<u>FACU</u>		Total % Cover of: _____ Multiply by: _____
2. <u>Rosa nutkana</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>	OBL species <u>0</u> x 1 = <u>0</u>	
3. <u>Rosa nutkana</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	FACW species <u>20</u> x 2 = <u>40</u>	
4. _____	_____	_____	_____	FAC species <u>40</u> x 3 = <u>120</u>	
5. _____	_____	_____	_____	FACU species <u>32</u> x 4 = <u>128</u>	
<u>60%</u> = Total Cover				UPL species <u>0</u> x 5 = <u>0</u>	
				Column Totals: <u>92</u> (A) <u>288</u> (B)	
				Prevalence Index = B/A = <u>3.13</u>	
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators:	
1. <u>Carex leptopoda</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u>Holcus lanatus</u>	<u>5%</u>	<u>Yes</u>	<u>FAC</u>		<u>X</u> <u>2</u> - Dominance Test is >50%
3. <u>Galium aparine</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>		<u>3</u> - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____		<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____		<u>5</u> - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
7. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
<u>12%</u> = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
<u>0%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>88%</u>				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	

Remarks:

SOIL	Sampling Point: 11
-------------	---------------------------

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators):								
Depth (inches)	Matrix		Redox Features			Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-4	10YR 3/1	100					SiCL	
4-16	10YR 3/2	95	7.5YR 4/6	5	C	M	SiCL	

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): <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
---	--

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:

HYDROLOGY

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

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u> N/A </u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u> >16 </u> Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u> >16 </u> (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
---	---

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 12
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52780653 Long: -122.84511540 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
5. _____	_____	_____	_____		Total % Cover of: _____ Multiply by: _____
0% = Total Cover				OBL species <u>0</u> x 1 = <u>0</u>	
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				FACW species <u>80</u> x 2 = <u>160</u>	
1. <u>Sambucus racemosa</u>	<u>7%</u>	<u>Yes</u>	<u>FACU</u>	FAC species <u>7</u> x 3 = <u>21</u>	
2. <u>Rosa nutkana</u>	<u>2%</u>	<u>No</u>	<u>FAC</u>	FACU species <u>8</u> x 4 = <u>32</u>	
3. <u>Symphoricarpos albus</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	UPL species <u>0</u> x 5 = <u>0</u>	
4. _____	_____	_____	_____	Column Totals: <u>95</u> (A) <u>213</u> (B)	
5. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.24</u>	
10% = Total Cover				Hydrophytic Vegetation Indicators:	
Herb Stratum (Plot Size: 5' r or _____)					1 - Rapid Test for Hydrophytic Vegetation
1. <u>Phalaris arundinacea</u>	<u>75%</u>	<u>Yes</u>	<u>FACW</u>		2 - Dominance Test is >50%
2. <u>Epilobium ciliatum</u>	<u>5%</u>	<u>No</u>	<u>FACW</u>		<u>X</u> 3 - Prevalence Index is ≤3.0 ¹
3. <u>Vicia species</u>	<u>5%</u>	<u>No</u>	<u>FAC*</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____		5 - Wetland Non-Vascular Plants ¹
5. _____	_____	_____	_____		Problematic Hydrophytic Vegetation (Explain) ¹
6. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present.
7. _____	_____	_____	_____		Hydrophytic Vegetation Present? Yes <u>X</u> No _____
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
85% = Total Cover					
Woody Vine Stratum (Plot Size: 10' r or _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum <u>15%</u>					

Remarks:
 *= Assumed FAC.

SOIL	Sampling Point: 12
-------------	---------------------------

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	10YR 3/2	100					SiCL	
10-14	10YR 3/2	98	5YR 4/4	2	C	M/PL	SiCL	
14-16	10YR 4/2	95	7.5YR 4/4	5	C	M/PL	SiCL	

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"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	<input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	

Restrictive Layer (if present):	Hydric Soil Present?
Type: _____	Yes _____ No <u> X </u>
Depth (inches): _____	

Remarks:

HYDROLOGY

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

Field Observations:				Wetland Hydrology Present?
Surface Water Present?	Yes _____ No <u> X </u>	Depth (inches):	<u> N/A </u>	Yes _____ No <u> X </u>
Water Table Present?	Yes _____ No <u> X </u>	Depth (inches):	<u> >16 </u>	
Saturation Present? (includes capillary fringe)	Yes _____ No <u> X </u>	Depth (inches):	<u> >16 </u>	

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 13
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 32BC, T.1N., R. 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52788051 Long: -122.84543880 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the 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>			

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fraxinus latifolia</u>	15%	Yes	FACW
2. <u>Salix lucida</u>	7%	No	FACW
3. <u>Salix sitchensis</u>	7%	No	FACW
4. _____	_____	_____	_____
	29% = Total Cover		
Sapling/Shrub Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Physocarpus capitatus</u>	25%	Yes	FACW
2. <u>Rosa nutkana</u>	10%	Yes	FAC
3. <u>Cornus alba</u>	7%	No	FACW
4. <u>Rubus armeniacus</u>	3%	No	FAC
5. <u>Salix sitchensis</u>	3%	No	FACW
	48% = Total Cover		
Herb Stratum (Plot Size: 5' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex leptopoda</u>	5%	Yes	FAC
2. <u>Lapsana communis</u>	3%	No	FACU
3. <u>Polystichum munitum</u>	2%	No	FACU
4. <u>Epilobium ciliatum</u>	1%	No	FACW
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
	11% = Total Cover		
Woody Vine Stratum (Plot Size: 10' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
	0% = Total Cover		
% Bare Ground in Herb Stratum	89%		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species	<u>0</u> x 1 =	<u>0</u>
FACW species	<u>65</u> x 2 =	<u>130</u>
FAC species	<u>18</u> x 3 =	<u>54</u>
FACU species	<u>5</u> x 4 =	<u>20</u>
UPL species	<u>0</u> x 5 =	<u>0</u>
Column Totals:	<u>88</u> (A)	<u>204</u> (B)
Prevalence Index = B/A =		<u>2.32</u>

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation _____

X 2 - Dominance Test is >50% _____

X 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 Vegetation (Explain)¹ _____

¹Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL	Sampling Point: 13
-------------	---------------------------

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	10YR 3/2	100					SiL	
10-16	10YR 3/2	98	5YR 4/4	2	C	M	SiL	

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): <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
--	--

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present?	Yes _____	No X _____
-----------------------------	-----------	-------------------

Remarks:

HYDROLOGY

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

Field Observations:

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

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

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

Remarks:

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

Project/Site: THPRD Willow Creek Boardwalk City/County: Beaverton/ Washington Sampling Date: 4/20/2023
 Applicant/Owner: Tualatin Hills Parks & Recreation District State: Oregon Sampling Point: 14
 Investigator(s): Sonya Templeton and Rebecca Schilling Section, Township, Range: SEC. 31DA, T.1N., 1W., W.M
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): <3
 Subregion (LRR): A. Northwest Forests and Coast Lat: 45.52679805 Long: -122.84603607 Datum: _____
 Soil Map Unit Name: Unit 13: Cove silty clay loam; Hydric NWI classification: _____
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 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 the Sampled Area within a Wetland?
Hydric Soil Present?	Yes <u>X</u>	No _____	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	

Precipitation:
 According to the NWS Hillsboro weather station, 0.25 inches of rainfall was received on the day of the site visit and 3.02 inches within the two weeks prior.

Remarks:

VEGETATION

Tree Stratum (Plot Size: 30' r or _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>100</u> x 3 = <u>300</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>300</u> (B) Prevalence Index = B/A = <u>3.00</u>
Sapling/Shrub Stratum (Plot Size: 10' r or _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0% = Total Cover				
Herb Stratum (Plot Size: 5' r or _____)				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation (Explain) ¹ ¹ Indicators of hydric soil and wetland hydrology must be present.
1. <u>Schedonorus arundinaceus</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	
2. <u>Trifolium species</u>	<u>40%</u>	<u>Yes</u>	<u>FAC*</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100% = Total Cover				
Woody Vine Stratum (Plot Size: 10' r or _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
0% = Total Cover				
% Bare Ground in Herb Stratum	<u>0%</u>			

Remarks:
 *=Assumed FAC. Maintained planted field.

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	10YR 4/2	98	7.5YR 3/3	2	C	M	SiCL	
10-16	10YR 4/2	90	5YR 4/4	10	C	M	SiCL	

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

<p>Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted):</p> <p>___ Histosol (A1) ___ Sandy Redox (S5) ___ Histic Epipedon (A2) ___ Stripped Matrix (S6) ___ Black Histic (A3) ___ Loamy Mucky Mineral (F1) (except MLRA 1) ___ Hydrogen Sulfide (A4) ___ Loamy Gleyed Matrix (F2) ___ Depleted Below Dark Surface (A11) <u> X </u> Depleted Matrix (F3) ___ Thick Dark Surface (A12) ___ Redox Dark Surface (F6) ___ Sandy Mucky Mineral (S1) ___ Depleted Dark Surface (F7) ___ Sandy Gleyed Matrix (S4) ___ Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p>___ 2 cm Muck (A10) ___ Red Parent Material (TF2) ___ Very Shallow Dark Surface (TF12) ___ Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
--	--

<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <u> X </u> No _____</p>
---	--

Remarks:

HYDROLOGY

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

<p>Field Observations:</p> <p>Surface Water Present? Yes _____ No <u> X </u> Depth (inches): <u> N/A </u></p> <p>Water Table Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u></p> <p>Saturation Present? Yes _____ No <u> X </u> Depth (inches): <u> >16 </u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes _____ No <u> X </u></p>
--	--

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

Remarks:

Appendix C: Representative Site Photographs



Photo A. View of most eastern portion of the wetland and paired plots 1 and 2.



Photo B. Photo taken facing east toward plot 3 looking at wetland and upland conditions along the boardwalk within the eastern portion of the study area.



Photo C. View facing north looking at plot 5 and a portion of the wetland boundary.



Photo D. View facing north looking at plot 7 and the wetland boundary with the off-site portion Willow Creek in the background.



Photo E. View facing west looking at upland plot 6 and forested wetland conditions.



Photo F. Photo taken facing northeast looking at plot 8, the wetland, on-site portion of Willow Creek and Beaver Dam.



Photo G. View of plot 9, the palustrine-emergent wetland conditions and the on-site portion of Willow Creek.



Photo H. View facing east looking at the forested upland conditions along the boardwalk adjacent to the wetland.



Photo I. View facing east looking at upland plot 12 and Willow Creek.



Photo J. Photo taken facing west looking at boardwalk bridge crossing across Willow Creek.



Photo K. View facing west looking at upland plot 11 and on-site portion of Willow Creek.



Photo L. View of upland conditions and plot 14 located within southern portion of study area.