

Panzer Nursery Wetland Delineation Report

SEPTEMBER 2022

PREPARED FOR

Stanton Street Building Company LLC

PREPARED BY

SWCA Environmental Consultants

**PANZER NURSERY WETLAND DELINEATION REPORT
TOWNSHIP 1 SOUTH, RANGE 1 WEST, SECTION 06BC,
WASHINGTON COUNTY TAX LOTS 3600, 3700, 3702, 3800,
3900, 4000, 4100, AND 4200, BEAVERTON, OREGON**

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INTRODUCTION

SWCA Environmental Consultants (SWCA) conducted a wetland delineation of the approximately 28.54-acre Panzer Nursery site located at 17980 SW Baseline Road, in Beaverton, Oregon (Figure 1). The study area comprises Tax Lots 3600, 3700, 3702, 3800, 3900, 4000, 4100, and 4200 on Washington County Tax Map 1S106BC (Figures 2 and 3). Table 1 shows site addresses and the tax lot acreage based on the tax lot map (professional land survey provided the site size listed above, resulting in the slight difference in the total). The centroid latitude and longitude of the study area are 45.513187 and -122.864388. Fieldwork was conducted on June 29 and July 6, 2022. This report presents the results of the delineation of one wetland (Wetland Pz).

Table 1. Study Area Tax Lot Summary

Township	Range	Section	Tax Lot	Site Address	Acres
1 South	1 West	06BC	3600	No site address	14.29
			3700	No site address	0.60
			3702	1065 SW 181st Avenue, Aloha	4.16
			3800	18110 SW Baseline Road, Beaverton	3.63
			3900	No site address	0.87
			4000	No site address	0.88
			4100	17980 SW Baseline Road, Beaverton	3.33
			4200	No site address	0.85
Total Approximate Acreage					28.61

A. LANDSCAPE SETTING AND LAND USE

OAR141-090-0035 (12)(a)

The site has been used as a greenhouse nursery for many years. The site is generally flat. Surrounding land use is residential south of Baseline Road and commercial/industrial north of Baseline Road. Willow Creek, located northwest of the site, flows southwest into Beaverton Creek south of the site.

B. SITE ALTERATIONS

OAR141-090-0035 (10)(a-b), (12)(b)

The majority of the site is developed with greenhouses, office buildings, and parking areas. A single-family residence with a swimming pool and detached garage is located in the south-central portion of the site. The only natural vegetation remaining on the site surrounds the residence on the west and south sides. Historical aerials of the site indicate that the nursery initiated development between 1960 and 1970 and was completely built out between 1994 and 2000. Recent aerial photographs of the site are in Appendix A.

C. PRECIPITATION DATA AND ANALYSIS

OAR141-090-0035 (12)(c)

The wetlands climate analysis (WETS) station and observed precipitation data for the subject site were obtained from the Portland, Oregon, KGW-TV station (National Oceanic and Atmospheric Administration [NOAA] 2022). Average annual rainfall according to the WETS table for the station is 44.07 inches, and the growing season is from January 12 to December 29. Table 2 shows the monthly precipitation averages and observed precipitation for several months prior to SWCA's site visits.

Table 2. Precipitation Data – Monthly Averages Based on the Climate Period 1991–2020

Month	Average (inches)	30% Chance Will Have		Observed Precipitation (inches)	Within Normal Range?
		Less Than (inches)	More Than (inches)		
June	1.49	0.85	1.81	3.29	Above normal (221%)
May	2.58	1.41	3.07	4.69	Above normal (182%)
April	3.63	2.69	4.22	6.22	Above normal (171%)
March	4.83	3.66	5.67	4.42	Normal (92%)

Source: NOAA (2022).

Table 3 shows precipitation on the day of the field visit, 2 weeks prior, water year to date (WYTD; starts October 1), calendar year to date (CYTD), and normal values.

Table 3. Precipitation Summary

Field Visit Date	Observed Precipitation (inches)				WYTD Normal Value (Percentage of Normal)	CYTD Normal Value (Percentage of Normal)
	Day of	2 Weeks Prior	WYTD	CYTD		
June 29, 2022	0.00	0.21	46.27	24.65	41.46 (112%)	23.57 (105%)
July 6, 2022	0.21	0.02	37.35	15.73	41.63 (119%)	23.74 (117%)

Source: NOAA (2022).

Based on the data in Tables 2 and 3, and using the standard antecedent precipitation tables in Appendix B, the precipitation for the prior months was wetter than normal. However, based on the type of wetland delineated, it is not surprising that it dried out quickly after the rains ceased on June 19.

D. METHODS

OAR141-090-0035 (7)(a-g), (8), (9), (10)(a-b), (11)(a-c), (12)(d-g),(h)(A-J), (15), (16), (17)(a-e)

The methodology used for determining the presence of wetlands and delineating wetland boundaries followed the U.S. Army Corps of Engineers (USACE) *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)* (USACE 2010), used by both the Oregon Department of State Lands (DSL) and USACE. *The National Wetland Plant List* (USACE 2020) was used to assign wetland indicator status for the region.

Fieldwork was conducted on June 29 and July 6, 2022, by C. Mirth Walker, Senior Professional Wetland Scientist (PWS), and Chris Moller, Lead Wetland Scientist. Soils, vegetation, and any indicators of hydrology were recorded at eight sample plot locations on standardized wetland determination data forms (Appendix C) to document site conditions. Soil colors were identified using the Munsell Soil Color Charts Year 2000 revised washable edition by X-Rite published in Grand Rapids, Michigan.

Table 4 shows the mapped soils on the site, and the soil map is shown on Figure 4.

Table 4. Soil Map Units (Washington County)

Map Unit Symbol	Map Unit Name	Hydric	Hydric Inclusion
1	Aloha silt loam	No	Huberly
37C	Quatama loam, 7% to 12% slopes	No	Huberly
37D	Quatama loam, 12% to 20% slopes	No	Huberly
2027A	Verboort silty clay loam, 0% to 3% slopes	Yes	Dayton, Wapato, Labish, Cove, silty clay loam surface
2225A	Huberly silt loam, 0% to 3% slopes	Yes	Verboort

Source: Natural Resources Conservation Service (2022a, 2022b).

Representative ground-level site photographs are included in Appendix D. A list of vegetation (with common and scientific names, and wetland indicator status) observed on the site is included in Appendix E. The site is covered by a Local Wetlands Inventory (LWI) map (Figure 5), so no National Wetlands Inventory (NWI) map is provided with this report.

E. DESCRIPTION OF ALL WETLANDS AND OTHER NON-WETLAND WATERS

OAR141-090-0035 (2), (7)(a-g), (8), (9), (10)(a-b), (11)(a-c), (12)(e), (14)(a-i), (15), (16), (17)(a-e)

Wetland

Wetland Pz (0.42 acre / 18,285 square feet)

Wetland Pz is classified as mostly a palustrine forested (PFO) wetland with a small area of palustrine emergent (PEM) wetland along the eastern side using the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). The wetland is classified as a depressional wetland using the *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles* (Adamus 2001).

Wetland Pz’s vegetation was dominated by Oregon ash (*Fraxinus latifolia*) trees, with Nootka rose (*Rosa nutkana*), English hawthorn (*Crataegus monogyna*), Oregon crabapple (*Malus fusca*), and four-line honeysuckle or black twinberry (*Lonicera involucrata*) in the understory, and large camas (*Camassia leichtlinii*) and spreading rush (*Juncus patens*) in the herbaceous layer, with toad rush (*Juncus bufonius*) present in the emergent portion of the wetland. Soils displayed the Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) hydric soil indicators. Due to the late spring/early summer evaluation, wetland hydrology was documented by the presence of oxidized rhizospheres along living roots and secondary hydrology indicators. Wetland hydrology is likely provided by a high groundwater table in the spring and by surface precipitation.

The wetland boundary was defined by a change in topographic elevation, and changes in the plant community, soils, and hydrology. The wetland is contained entirely within the site and does not extend off-site.

Upland

The forested upland on the site was dominated by Oregon white oak (*Quercus garryana*), Saskatoon service-berry (*Amelanchier alnifolia*), common snowberry (*Symphoricarpos albus*), and English ivy (*Hedera helix*). One plot, SP5, was placed in the only undeveloped area mapped with hydric soils, on a mound along Baseline Road, which was dominated by annual blue grass (*Poa annua*) and hairy cat's-ear (*Hypochaeris radicata*). Sample plots in upland areas did not display hydric soil indicators (except for SP5, on fill; SP6, which did not have strong wetland vegetation; and SP8, a very tiny patch of slough sedge [*Carex obnupta*] that did not display any secondary indicators of hydrology). Sample plots in upland areas lacked any indicators of wetland hydrology. SWCA is confident that the wetland boundary was delineated well, even though primary indicators of wetland hydrology were lacking at the time of our site visits.

F. DEVIATION FROM LWI OR NWI

OAR141-090-0035 (7)(e), (12)(f)

The City of Beaverton LWI (Shapiro and Associates, Inc. 2000; map updated 2001) (see Figure 5) shows no wetlands mapped on the site. Likewise, the NWI only maps Willow Creek northwest of the site.

G. MAPPING METHOD

OAR141-090-0035 (3), (5), (11)(a-c), (12)(f),(g), (13)(a-g), (14)(a-i), (15), (16)

Wetland boundaries were flagged with pink “Wetland Boundary” flagging, and sample plots were flagged with yellow wire whips with red and white streamers. The wetland boundary and sample plot locations were professionally land surveyed by Standridge Inc. (Figures 6 and 7), and also surveyed by SWCA with a Juniper Geode Global Navigation Satellite System receiver paired with a Samsung computer tablet using Collector for ArcGIS software. Horizontal map accuracy is better than 1 m.

H. ADDITIONAL INFORMATION

OAR141-090-0035 (9), (10)(a-b), (12)(h)(A-J)

The site is outside any 100-year flood zone (Federal Emergency Management Agency 2022). The nearby Willow Creek is mapped as Essential Salmonid Fish Habitat (DSL 2022).

I. RESULTS AND CONCLUSIONS

OAR141-090-0035 (12)(i)

The delineated wetland is a 0.42-acre PFO/PEM, and classified as depressionnal. The centroid latitude and longitude of the wetland are 45.512182 and -122.864964.

The delineated wetland is likely to be determined to be jurisdictional by DSL, but not likely to be determined to be jurisdictional by USACE, because it is isolated and no nexus to navigable waters is present. Jurisdictional determination is the responsibility of the regulatory agencies.

J. REQUIRED DISCLAIMER

OAR141-009-0035 (12)(j)

This report documents the investigation, best professional judgment, and conclusions of the investigator. It is correct and complete to the best of my 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 DSL in accordance with Oregon Administrative Rules (OAR) 141-090-0005 through 141-090-0055.

K. LIST OF PREPARERS

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L. LITERATURE CITED AND REVIEWED

- Adamus, P.R. 2001. *Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites: Statewide Classification and Profiles*. Salem: Oregon Department of State Lands. Available at: https://www.oregon.gov/dsl/WW/Documents/hydro_guide_class.pdf. Accessed September 6, 2022.
- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31. Washington, D.C.: U.S. Fish and Wildlife Service. Available at: <http://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf>. Accessed June 24, 2022.
- Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Online edition. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. Available at: <https://usace.contentdm.oclc.org/digital/collection/p266001coll1/id/4530>. Accessed June 24, 2022.
- Federal Emergency Management Agency. 2022. Flood map service center. Flood Insurance Rate Map Number 41067C0363F. Effective October 19, 2018. Available at: <https://msc.fema.gov/portal/home>. Accessed September 6, 2022.
- Google Earth. 2022. Aerial photographs of 17980 SW Baseline Road, Beaverton, Oregon. Available at: <http://earth.google.com>. Accessed September 6, 2022.
- National Oceanic and Atmospheric Administration (NOAA). 2022. AgACIS Regional Climate Center website. Available at: <http://agacis.rcc-acis.org/>. Accessed September 6, 2022.
- Natural Resources Conservation Service. 2022a. Web soil survey. Available at: <http://websoilsurvey.nrcs.usda.gov/app/>. Accessed June 24, 2022.
- . 2022b. Hydric Soils List: Washington County Area, Oregon. Natural Resources Conservation Service. Available at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcseprd1316620.html. Accessed June 24, 2022.
- Oregon Department of State Lands (DSL). 2013. Administrative Rules for Wetland Delineation Report Requirements. Effective January 1, 2013. Salem, Oregon: Oregon Department of State Lands. Available at: <https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=355>. Accessed June 24, 2022.
- . 2022. Essential Salmonid Habitat. Oregon Department of State Lands Habitat Web Map. Available at: <https://www.oregon.gov/dsl/WW/Pages/ESH-permits.aspx>. Accessed September 6, 2022.
- Oregon Map. 2022. Washington County. Available at: <https://ormap.net/gis/index.html>. Accessed June 24, 2022.
- Shapiro and Associates, Inc. 2000. *City of Beaverton Local Wetland Inventory and Riparian Assessment*. Prepared for the City of Beaverton, Oregon. Portland, Oregon: Shapiro and Associates, Inc. Available at: <https://www.oregon.gov/dsl/WW/Pages/Inventories.aspx>. Accessed September 6, 2022.

U.S. Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountain, Valleys, and Coast Region (Version 2.0)*, edited by J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-3. Vicksburg, Mississippi: U.S. Army Corps of Engineers Engineer Research and Development Center.

———. 2020. National Wetland Plant List. Version 3.5. Hanover, New Hampshire: U.S. Army Corps of Engineers Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Available at: <http://wetland-plants.usace.army.mil/>. Accessed November 2, 2021.

U.S. Geological Survey. 2022. Linnton, Oregon. 7.5-minute topographic quadrangle. 1:24,000. Available at: <https://www.usgs.gov/core-science-systems/ngp/tnm-delivery/topographic-maps>. Accessed June 24, 2022.

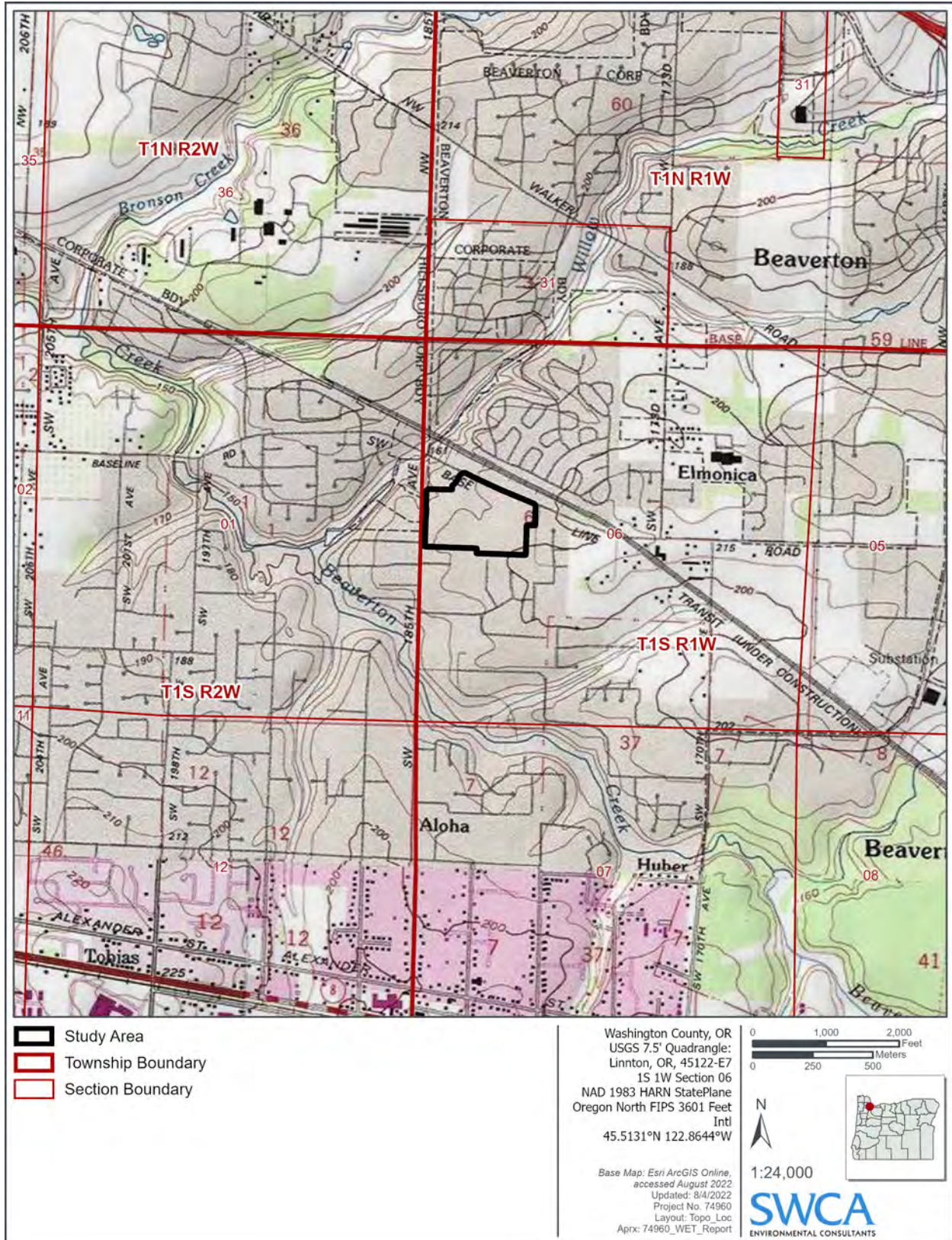


Figure 1. Site location map.



Figure 2. Tax lot map (aerial base).

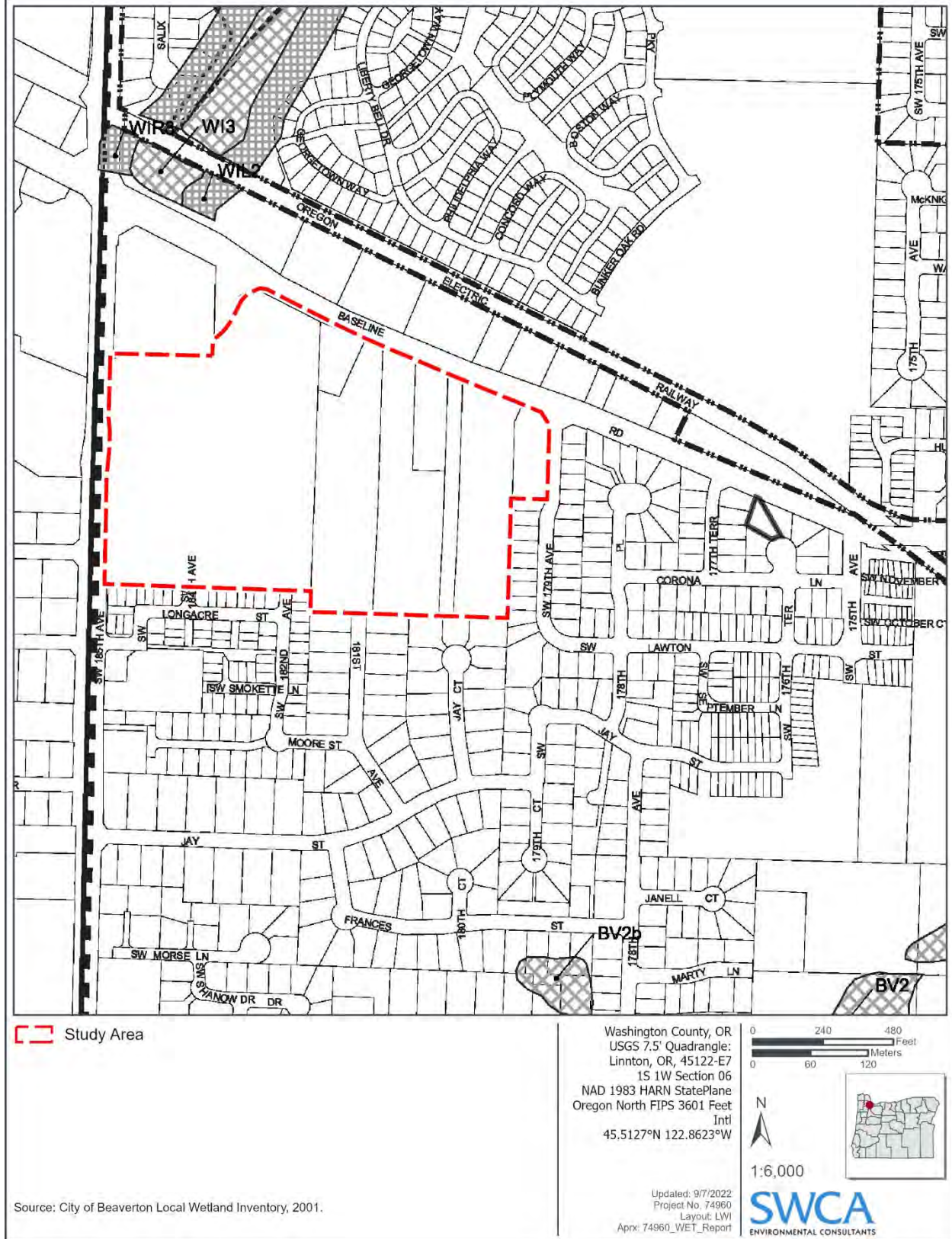


Figure 5. Local Wetlands Inventory map.



Figure 6. Wetland delineation map.



Figure 7. Wetland delineation map detail.

Appendix A
Aerial Photographs

Panzer Nursery

Aerial Photograph dated May 13, 2021.

Legend

- Black Rock Coffee
- Feature 1
- Feature 2
- PanzerNursery
- Sesame Donuts



SW 165th Ave

SW 168th Ave

SW 170th Ave

SW Jondarra St

2027A

37D

Google Earth



700 ft

Willamette

ments

Panzer Nursery

A & J Land

Save On

the ratio | BBOX:(-122.8691, 45.5113) (-122.8592, 45.5154) | 86 acres

Panzer Nursery

Aerial Photograph dated July 20, 2018.

Legend

- Black Rock Coffee
- Feature 1
- Feature 2
- PanzerNursery
- Sesame Donuts



Panzer Nursery

Aerial Photograph dated December 31, 2013.

Legend

- Black Rock Coffee
- Feature 1
- Feature 2
- PanzerNursery
- Sesame Donuts



Google Earth

Panzer Nursery

Aerial Photograph dated July 23, 2012.

Legend

- 📍 Black Rock Coffee
- 📍 Feature 1
- 📍 Feature 2
- 📍 PanzerNursery
- 📍 Sesame Donuts



Google Earth

Image © 2022 Metro, Portland Oregon

SW Longacre St

700 ft

Appendix B
Precipitation Data

Assessing Rainfall for the Preceding 3-Month Period (Antecedent Rainfall)									Climate Period 1991-2020	
WETS Station: Portland KGW-TV, Oregon									Since Oct. 1st	Since Jan. 1st
Measured Rainfall: Portland KGW-TV, Oregon										
Prior Month Most Recent First	WETS Rainfall Percentile		Measured Rainfall inches	Condition Dry, Wet, Normal	Condition Value (1=dry, 2=normal, 3=wet)	Month Weight	Multiply previous 2 columns	Departure from Normal*	Departure from Normal*	
	30th	70th								
1st May	1.41	3.07	4.69	Wet	3	3	9	4.81	1.08	
2nd April	2.69	4.22	6.22	Wet	3	2	6	WYTD*	CYTD*	
3rd March	3.66	5.67	4.42	Normal	2	1	2	46.27	24.65	
			15.33					Normal	Normal	
								41.46	23.57	
				<i>Normals</i>				*As of Date:	6/29/2022	
Jan-22	4.57	7.25	6.25	6.36						
Feb-22	2.95	5.72	2.86	4.74						
Mar-22	3.66	5.67	4.42	4.83						
Apr-22	2.69	4.22	6.22	3.63						
May-22	1.41	3.07	4.69	2.58						
Jun-22	0.85	1.81		1.49						
Jul-22	0.23	0.48		0.43						
Aug-22	0.16	0.59		0.54						
Sep-22	0.69	1.94		1.58						
Oct-21	2.39	4.74	4.39	3.96						
Nov-21	4.47	7.79	8.12	6.58						
Dec-21	5.4	8.81	9.11	7.35						
Totals:	38.44	48.63	46.06	44.07		Sum	17			
Rainfall of prior period was: drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18)									Wetter than Normal	

WETS Table (based on climate period 1991-2020) and Measured Rainfall source:
Normals are calculated based on climate period 1991-2020.

<http://agacis.rcc-acis.org/>

Assessing Rainfall for the Preceding 3-Month Period (Antecedent Rainfall)									Climate Period 1991-2020	
WETS Station: Portland KGW-TV, Oregon									Since Oct. 1st	Since Jan. 1st
Measured Rainfall: Portland KGW-TV, Oregon										
Prior Month Most Recent First	WETS Rainfall Percentile		Measured Rainfall inches	Condition Dry, Wet, Normal	Condition Value (1=dry, 2=normal, 3=wet)	Month Weight	Multiply previous 2 columns	Departure from Normal* 7.74	Departure from Normal* 4.01	
	30th	70th								
1st June	0.85	1.81	3.29	Wet	3	3	9	WYTD*	CYTD*	
2nd May	1.41	3.07	4.69	Wet	3	2	6	49.37	27.75	
3rd April	2.69	4.22	6.22	Wet	3	1	3	Normal	Normal	
			14.20					41.63	23.74	
				<i>Normals</i>				*As of Date: 7/6/2022		
Jan-22	4.57	7.25	6.25	6.36						
Feb-22	2.95	5.72	2.86	4.74						
Mar-22	3.66	5.67	4.42	4.83						
Apr-22	2.69	4.22	6.22	3.63						
May-22	1.41	3.07	4.69	2.58						
Jun-22	0.85	1.81	3.29	1.49						
Jul-22	0.23	0.48		0.43						
Aug-22	0.16	0.59		0.54						
Sep-22	0.69	1.94		1.58						
Oct-21	2.39	4.74	4.39	3.96						
Nov-21	4.47	7.79	8.12	6.58						
Dec-21	5.4	8.81	9.11	7.35						
Totals:	38.44	48.63	49.35	44.07		Sum	18			
Rainfall of prior period was: drier than normal (sum is 6-9), normal (sum is 10-14), wetter than normal (sum is 15-18)									Wetter than Normal	

WETS Table (based on climate period 1991-2020) and Measured Rainfall source:
Normals are calculated based on climate period 1991-2020.

<http://agacis.rcc-acis.org/>

WETS Station: PORTLAND KGW-TV, OR

Requested years: 1991 - 2020

Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	46.9	37.3	42.1	6.36	4.57	7.25	13	1.3
Feb	50.5	38.8	44.7	4.74	2.95	5.72	10	1.4
Mar	55.8	40.9	48.4	4.83	3.66	5.67	12	0
Apr	60.7	44.2	52.5	3.63	2.69	4.22	10	0
May	68	49.4	58.7	2.58	1.41	3.07	7	0
Jun	72.9	53.3	63.1	1.49	0.85	1.81	5	0
Jul	80.3	57.9	69.1	0.43	0.23	0.48	1	0
Aug	80.6	58.6	69.6	0.54	0.16	0.59	2	0
Sep	74.9	55.1	65	1.58	0.69	1.94	4	0
Oct	62.9	47.9	55.4	3.96	2.39	4.74	8	0
Nov	52.3	41.6	47	6.58	4.47	7.79	13	0
Dec	45.9	37.3	41.6	7.35	5.4	8.81	14	0.9
Annual:					38.44	48.63		
Average	62.6	46.9	54.8	-	-	-	-	-
Total	-	-	-	44.07			100	3.6

GROWING SEASON DATES

Years with missing data:	24 deg = 3	28 deg = 3	32 deg = 1
Years with no occurrence:	24 deg = 20	28 deg = 9	32 deg = 0
Data years used:	24 deg = 27	28 deg = 27	32 deg = 29
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	No occurrence	1/12 to 12/29: 351 days	2/20 to 11/28: 281 days
70 percent *	No occurrence	No occurrence	2/11 to 12/8: 300 days

* Percent chance of the growing season occurring between the Beginning and Ending dates.

Climatological Data for PORTLAND KGW-TV, OR - July 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-07-01	79	54	66.5	27	17	0.00	0.0	0
2022-07-02	71	57	64.0	24	14	0.00	0.0	0
2022-07-03	70	53	61.5	22	12	0.00	0.0	0
2022-07-04	76	53	64.5	25	15	0.00	0.0	0
2022-07-05	75	59	67.0	27	17	0.02	0.0	0
2022-07-06	73	61	67.0	27	17	0.21	0.0	0
2022-07-07	78	59	68.5	29	19	0.03	0.0	0
2022-07-08	81	59	70.0	30	20	0.00	0.0	0
2022-07-09	79	59	69.0	29	19	0.00	0.0	0
2022-07-10	78	55	66.5	27	17	0.00	0.0	0
2022-07-11	92	62	77.0	37	27	0.00	0.0	0
2022-07-12	89	67	78.0	38	28	0.00	0.0	0
2022-07-13	78	56	67.0	27	17	0.00	0.0	0
2022-07-14	84	54	69.0	29	19	0.00	0.0	0
2022-07-15	84	56	70.0	30	20	0.00	0.0	0
2022-07-16	75	62	68.5	29	19	0.00	0.0	0
2022-07-17	71	59	65.0	25	15	0.00	0.0	0
2022-07-18	77	53	65.0	25	15	0.00	0.0	0
2022-07-19	88	60	74.0	34	24	0.00	0.0	0
2022-07-20	89	61	75.0	35	25	0.00	0.0	0
2022-07-21	85	59	72.0	32	22	0.00	0.0	0
2022-07-22	76	59	67.5	28	18	0.00	0.0	0
2022-07-23	74	57	65.5	26	16	0.00	0.0	0
2022-07-24	88	59	73.5	34	24	0.00	0.0	0
2022-07-25	96	68	82.0	42	32	0.00	0.0	0
2022-07-26	101	67	84.0	44	34	0.00	0.0	0
2022-07-27	94	64	79.0	39	29	0.00	0.0	0
2022-07-28	94	65	79.5	40	30	0.00	0.0	0
2022-07-29	96	69	82.5	43	33	0.00	0.0	0
2022-07-30	100	68	84.0	44	34	0.00	0.0	0
2022-07-31	96	67	81.5	42	32	0.00	0.0	0
Average Sum	83.5	60.0	71.7	990	680	0.26	0.0	0.0

Climatological Data for PORTLAND KGW-TV, OR - June 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-06-01	77	58	67.5	28	18	0.00	0.0	0
2022-06-02	80	55	67.5	28	18	T	0.0	0
2022-06-03	67	55	61.0	21	11	0.10	0.0	0
2022-06-04	62	54	58.0	18	8	0.28	0.0	0
2022-06-05	68	55	61.5	22	12	0.25	0.0	0
2022-06-06	65	52	58.5	19	9	0.11	0.0	0
2022-06-07	75	48	61.5	22	12	0.00	0.0	0
2022-06-08	75	58	66.5	27	17	0.00	0.0	0
2022-06-09	71	57	64.0	24	14	0.20	0.0	0
2022-06-10	66	56	61.0	21	11	1.27	0.0	0
2022-06-11	66	56	61.0	21	11	0.35	0.0	0
2022-06-12	60	52	56.0	16	6	0.11	0.0	0
2022-06-13	59	48	53.5	14	4	0.00	0.0	0
2022-06-14	64	49	56.5	17	7	0.04	0.0	0
2022-06-15	69	50	59.5	20	10	T	0.0	0
2022-06-16	70	55	62.5	23	13	0.00	0.0	0
2022-06-17	58	53	55.5	16	6	0.17	0.0	0
2022-06-18	62	51	56.5	17	7	0.21	0.0	0
2022-06-19	64	51	57.5	18	8	0.20	0.0	0
2022-06-20	69	54	61.5	22	12	0.00	0.0	0
2022-06-21	81	55	68.0	28	18	0.00	0.0	0
2022-06-22	76	57	66.5	27	17	0.00	0.0	0
2022-06-23	75	49	62.0	22	12	0.00	0.0	0
2022-06-24	82	53	67.5	28	18	0.00	0.0	0
2022-06-25	92	61	76.5	37	27	0.00	0.0	0
2022-06-26	99	63	81.0	41	31	0.00	0.0	0
2022-06-27	91	65	78.0	38	28	0.00	0.0	0
2022-06-28	76	55	65.5	26	16	0.00	0.0	0
2022-06-29	75	57	66.0	26	16	0.00	0.0	0
2022-06-30	79	54	66.5	27	17	0.00	0.0	0
Average Sum	72.4	54.5	63.5	714	414	3.29	0.0	0.0

Climatological Data for PORTLAND KGW-TV, OR - May 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-05-01	65	48	56.5	17	7	0.00	0.0	0
2022-05-02	57	45	51.0	11	1	0.33	0.0	0
2022-05-03	60	46	53.0	13	3	0.00	0.0	0
2022-05-04	74	45	59.5	20	10	0.00	0.0	0
2022-05-05	60	45	52.5	13	3	0.44	0.0	0
2022-05-06	58	47	52.5	13	3	0.80	0.0	0
2022-05-07	55	45	50.0	10	0	0.34	0.0	0
2022-05-08	49	41	45.0	5	0	0.19	0.0	0
2022-05-09	53	39	46.0	6	0	0.01	0.0	0
2022-05-10	60	41	50.5	11	1	0.01	0.0	0
2022-05-11	60	41	50.5	11	1	0.00	0.0	0
2022-05-12	53	42	47.5	8	0	0.29	0.0	0
2022-05-13	56	37	46.5	7	0	0.24	0.0	0
2022-05-14	69	48	58.5	19	9	0.48	0.0	0
2022-05-15	67	55	61.0	21	11	0.22	0.0	0
2022-05-16	63	53	58.0	18	8	0.00	0.0	0
2022-05-17	65	45	55.0	15	5	0.00	0.0	0
2022-05-18	61	46	53.5	14	4	0.18	0.0	0
2022-05-19	56	44	50.0	10	0	0.10	0.0	0
2022-05-20	60	42	51.0	11	1	0.00	0.0	0
2022-05-21	71	44	57.5	18	8	0.00	0.0	0
2022-05-22	75	48	61.5	22	12	0.00	0.0	0
2022-05-23	70	54	62.0	22	12	0.00	0.0	0
2022-05-24	68	47	57.5	18	8	T	0.0	0
2022-05-25	73	53	63.0	23	13	0.06	0.0	0
2022-05-26	73	56	64.5	25	15	0.20	0.0	0
2022-05-27	61	52	56.5	17	7	0.22	0.0	0
2022-05-28	60	50	55.0	15	5	0.31	0.0	0
2022-05-29	59	49	54.0	14	4	0.24	0.0	0
2022-05-30	64	47	55.5	16	6	0.03	0.0	0
2022-05-31	78	50	64.0	24	14	0.00	0.0	0
Average Sum	63.0	46.6	54.8	467	171	4.69	0.0	0.0

Climatological Data for PORTLAND KGW-TV, OR - April 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-04-01	60	39	49.5	10	0	0.02	0.0	0
2022-04-02	58	43	50.5	11	1	0.00	0.0	0
2022-04-03	55	43	49.0	9	0	0.01	0.0	0
2022-04-04	54	41	47.5	8	0	0.84	0.0	0
2022-04-05	54	39	46.5	7	0	0.01	0.0	0
2022-04-06	64	36	50.0	10	0	0.00	0.0	0
2022-04-07	76	50	63.0	23	13	0.00	0.0	0
2022-04-08	62	46	54.0	14	4	0.08	0.0	0
2022-04-09	52	40	46.0	6	0	0.01	0.0	0
2022-04-10	42	35	38.5	0	0	0.48	0.0	0
2022-04-11	47	31	39.0	0	0	1.33	2.0	0
2022-04-12	45	36	40.5	1	0	0.59	T	0
2022-04-13	49	35	42.0	2	0	0.25	T	0
2022-04-14	48	33	40.5	1	0	0.31	0.0	0
2022-04-15	53	32	42.5	3	0	0.00	0.0	0
2022-04-16	52	39	45.5	6	0	0.03	0.0	0
2022-04-17	57	36	46.5	7	0	0.00	0.0	0
2022-04-18	53	42	47.5	8	0	0.49	0.0	0
2022-04-19	48	41	44.5	5	0	0.34	0.0	0
2022-04-20	53	39	46.0	6	0	0.13	0.0	0
2022-04-21	56	45	50.5	11	1	0.17	0.0	0
2022-04-22	60	40	50.0	10	0	0.01	0.0	0
2022-04-23	65	42	53.5	14	4	0.00	0.0	0
2022-04-24	69	41	55.0	15	5	0.00	0.0	0
2022-04-25	58	49	53.5	14	4	0.06	0.0	0
2022-04-26	55	43	49.0	9	0	0.12	0.0	0
2022-04-27	55	43	49.0	9	0	0.01	0.0	0
2022-04-28	54	44	49.0	9	0	0.05	0.0	0
2022-04-29	60	45	52.5	13	3	0.27	0.0	0
2022-04-30	59	48	53.5	14	4	0.61	0.0	0
Average Sum	55.8	40.5	48.2	255	39	6.22	2.0	0.0

Climatological Data for PORTLAND KGW-TV, OR - March 2022

Date	Max Temperature	Min Temperature	Avg Temperature	GDD Base 40	GDD Base 50	Precipitation	Snowfall	Snow Depth
2022-03-01	57	50	53.5	14	4	0.70	0.0	0
2022-03-02	52	48	50.0	10	0	0.95	0.0	0
2022-03-03	50	39	44.5	5	0	0.37	0.0	0
2022-03-04	51	39	45.0	5	0	0.00	0.0	0
2022-03-05	54	37	45.5	6	0	0.00	0.0	0
2022-03-06	51	38	44.5	5	0	0.00	0.0	0
2022-03-07	50	36	43.0	3	0	0.00	0.0	0
2022-03-08	47	39	43.0	3	0	0.12	0.0	0
2022-03-09	50	36	43.0	3	0	0.04	0.0	0
2022-03-10	50	30	40.0	0	0	0.00	0.0	0
2022-03-11	61	35	48.0	8	0	0.00	0.0	0
2022-03-12	60	35	47.5	8	0	0.20	0.0	0
2022-03-13	51	42	46.5	7	0	0.39	0.0	0
2022-03-14	55	45	50.0	10	0	0.18	0.0	0
2022-03-15	55	45	50.0	10	0	0.18	0.0	0
2022-03-16	57	42	49.5	10	0	0.00	0.0	0
2022-03-17	50	39	44.5	5	0	0.02	0.0	0
2022-03-18	56	47	51.5	12	2	0.03	0.0	0
2022-03-19	52	41	46.5	7	0	0.21	0.0	0
2022-03-20	49	39	44.0	4	0	0.06	0.0	0
2022-03-21	50	42	46.0	6	0	0.66	0.0	0
2022-03-22	65	50	57.5	18	8	0.11	0.0	0
2022-03-23	59	46	52.5	13	3	0.12	0.0	0
2022-03-24	66	38	52.0	12	2	0.00	0.0	0
2022-03-25	62	46	54.0	14	4	0.00	0.0	0
2022-03-26	63	43	53.0	13	3	0.05	0.0	0
2022-03-27	69	50	59.5	20	10	0.00	0.0	0
2022-03-28	60	51	55.5	16	6	0.00	0.0	0
2022-03-29	58	47	52.5	13	3	0.00	0.0	0
2022-03-30	56	45	50.5	11	1	0.01	0.0	0
2022-03-31	54	42	48.0	8	0	0.02	0.0	0
Average Sum	55.5	42.0	48.7	279	46	4.42	0.0	0.0

Appendix C

Wetland Determination Data Forms

SOIL

Sampling Point: **SP1**

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 2/2	100					SiL	
8-12	10YR 3/2	90	10YR 3/6	10	C	M	SiL	
12-23	10YR 4/1	80	10YR 4/6	20	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"/> 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 checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)
 Probed 2" below auger pit at 21" equals 23"

HYDROLOGY

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

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

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

Remarks: _____ Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 6/29/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP2
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.512289 Long: -122.864572 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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 <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Precipitation prior to fieldwork: Remarks: In driveway/ bark mulch area N of SP1.					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
0% = Total Cover				Total % Cover of: <u> </u> Multiply by: <u> </u>	
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)					
1. <u>Rhododendron species</u>	10%	Yes	FAC ?	OBL species	<u>0</u> x 1 = <u>0</u>
2. <u>Crataegus monogyna</u>	1%	No	FAC	FACW species	<u>52</u> x 2 = <u>104</u>
3. <u>Ilex aquifolium</u>	1%	No	FACU	FAC species	<u>11</u> x 3 = <u>33</u>
4. _____	_____	_____	_____	FACU species	<u>5</u> x 4 = <u>20</u>
5. _____	_____	_____	_____	UPL species	<u>0</u> x 5 = <u>0</u>
12% = Total Cover				Column Totals:	<u>68</u> (A) <u>157</u> (B)
Prevalence Index = B/A = <u>2.31</u>					
Herb Stratum (Plot size: <u>5' r</u>)					
1. <u>Juncus bufonius</u>	50%	Yes	FACW	Hydrophytic Vegetation Indicators:	
2. <u>Epilobium ciliatum</u>	2%	No	FACW	<u>1</u> - Rapid Test for Hydrophytic Vegetation	
3. <u>Hypericum perforatum</u>	2%	No	FACU	<u>X</u> 2 - Dominance Test is >50%	
4. <u>Hypochaeris radicata</u>	2%	No	FACU	<u>X</u> 3 - Prevalence Index is ≤3.0 ¹	
5. _____	_____	_____	_____	<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. _____	_____	_____	_____	<u>5</u> - Wetland Non-Vascular Plants ¹	
7. _____	_____	_____	_____	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
8. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present.	
9. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
56% = Total Cover					
Woody Vine Stratum (Plot size: <u>10' r</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
0% = Total Cover					
% Bare Ground in Herb Stratum		<u>44%</u>			

Remarks: _____ Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP2**

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		
0-2	10YR 3/1	95	10YR 3/3	5	C	M	SiCL	
2-9	10YR 3/2	100					SiCL	
9-17	10YR 3/2	85	10YR 3/6	5	C	M	SiCL	Mixed Matrix
	10YR 4/2	10						with charcoal
17-20	10YR 4/2	90	10YR 3/6	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.)		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)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)
Under 1 inch of bark mulch.

HYDROLOGY

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

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

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

Remarks: A few ORC in surface 2" from compaction/parking. Very dry. Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 6/29/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP3
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.512310 Long: -122.864803 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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 <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			
Precipitation prior to fieldwork: <u> </u>					
Remarks: <u>In the forest west of driveway.</u>					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Crataegus monogyna</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u>Fraxinus latifolia</u>	<u>55%</u>	<u>Yes</u>	<u>FACW</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>115%</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)				
1. <u>Amelanchier alnifolia</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>95</u> x 2 = <u>190</u> FAC species <u>65</u> x 3 = <u>195</u> FACU species <u>41</u> x 4 = <u>164</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>201</u> (A) <u>549</u> (B) Prevalence Index = B/A = <u>2.73</u>
2. <u>Symphoricarpos albus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Rosa species</u>	<u>5%</u>	<u>No</u>	<u>FAC ?</u>	
4. <u>Quercus garryana</u>	<u>1%</u>	<u>No</u>	<u>FACU</u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>46%</u> = Total Cover				
Herb Stratum (Plot size: <u>5' r</u>)				
1. <u>Camassia leichtlinii</u>	<u>40%</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>40%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10' r</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>60%</u>				

Remarks: Licorice fern on cottonwood hummock. Dual layer forest canopy and dual layer shrub layer - serviceberry almost a tree. Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP3**

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 2/1	100					SiL	
6-12	10YR 2/1	85	10YR 3/6	15	C	M	SiCL	
12-21	10YR 4/2	85	10YR 3/6	15	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.)		Indicators for Problematic Hydric Soils³:
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	wetland hydrology must be present,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	unless disturbed or problematic.

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

HYDROLOGY

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

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

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

Remarks: Have to look hard for ORC - found 3 ORCs in the 6-12 layer, have to assume a high GW table earlier in season. Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 6/29/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP4
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 3
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.512320 Long: -122.864681 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Precipitation prior to fieldwork: <u> </u>					
Remarks: <u>10' E of camas, ~ 20' W of driveway. 6-7" higher.</u>					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus latifolia</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
<u>30%</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Amelanchier alnifolia</u>	<u>50%</u>	<u>Yes</u>	<u>FACU</u>	Total % Cover of: <u> </u> Multiply by: <u> </u>
2. <u>Crataegus monogyna</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	OBL species <u>0</u> x 1 = <u>0</u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u>30</u> x 2 = <u>60</u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>10</u> x 3 = <u>30</u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>50</u> x 4 = <u>200</u>
<u>60%</u> = Total Cover				UPL species <u>20</u> x 5 = <u>100</u>
				Column Totals: <u>110</u> (A) <u>390</u> (B)
				Prevalence Index = B/A = <u>3.55</u>
Herb Stratum (Plot size: <u>5' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Polypodium glycyrrhiza</u>	<u>20%</u>	<u>Yes</u>	<u>NOL</u>	<u>1</u> - Rapid Test for Hydrophytic Vegetation
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>2</u> - Dominance Test is >50%
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>3</u> - Prevalence Index is ≤3.0 ¹
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>5</u> - Wetland Non-Vascular Plants ¹
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present?
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>20%</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>10' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>0%</u> = Total Cover				
% Bare Ground in Herb Stratum <u>80%</u>				

Remarks: #1 H licorice fern, dying from heat? Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP4**

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 3/1	100					SiL	
10-17	10YR 3/1	80	10YR 3/6	20	C	M	SiCL	
17-20	10YR 4/2	80	10YR 3/6	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.)		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)		³ Indicators of hydrophytic vegetation and
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		wetland hydrology must be present,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		unless disturbed or problematic.

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)
Too deep for F6.

HYDROLOGY

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

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

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

Remarks: _____ Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 6/29/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP5
 Investigator(s): C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Convex Slope (%): 2
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.513658 Long: -122.861870 Datum: NAD 1983
 Soil Map Unit Name: Huberly silt loam, 0-3% slopes (map unit 2225A) NWI classification: None
 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> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Precipitation prior to fieldwork: Remarks: E of nursery entrance. S of W Baseline Street. 21' feet E of sign and power pole. On top of mound.					

VEGETATION

Tree Stratum	(Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)					
1.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: <u> </u> 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>70</u> x 3 = <u>210</u> FACU species <u>30</u> x 4 = <u>120</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>100</u> (A) <u>330</u> (B) Prevalence Index = B/A = <u>3.30</u>
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
3.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
4.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
Herb Stratum (Plot size: <u>5' r</u>)					
1.	<u>Poa annua</u>	<u>60%</u>	<u>Yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.
2.	<u>Hypochaeris radicata</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>	
3.	<u>Trifolium repens</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>	
4.	<u>Trifolium dubium</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>	
5.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
6.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
7.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
8.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
9.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
10.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
11.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
100% = Total Cover					
Woody Vine Stratum (Plot size: <u>10' r</u>)					
1.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
2.	<u> </u>	<u> </u>	<u> </u>	<u> </u>	
0% = Total Cover					
% Bare Ground in Herb Stratum <u>0%</u>					

Remarks: Near purple plum. Landscape berm with sod plastic at 4" bgs. Mowed. Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP5**

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 3/2	90	7.5YR 4/6	10	C	M	SiL	fill

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

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)
Angular gravel fill. Sod plastic grid at 4" bgs.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<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? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks: _____ Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 7/6/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP6
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None Slope (%): 1
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.511949 Long: -122.865124 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Precipitation prior to fieldwork: <u> </u>					
Remarks: <u>SW corner.</u>					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	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>2</u> (A)	
2. <u>Quercus garryana</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>		
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>4</u> (B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>80%</u> = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)	
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)					
1. <u>Fraxinus latifolia</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u>	
2. <u>Rubus armeniacus</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		
3. <u>Rosa species</u>	<u>5%</u>	<u>No</u>	<u>FAC ?</u>		
4. <u>Prunus avium</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
5. <u>Symphoricarpos albus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
<u>55%</u> = Total Cover				OBL species <u>0</u> x 1 = <u>0</u>	
Herb Stratum (Plot size: <u>5' r</u>)				FACW species <u>70</u> x 2 = <u>140</u>	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u>15</u> x 3 = <u>45</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>150</u> x 4 = <u>600</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u>0</u> x 5 = <u>0</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u>235</u> (A) <u>785</u> (B)	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u>3.34</u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>0%</u> = Total Cover					Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
Woody Vine Stratum (Plot size: <u>10' r</u>)					
1. <u>Hedera helix</u>	<u>95%</u>	<u>Yes</u>	<u>FACU</u>		
2. <u>Rubus ursinus</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
<u>100%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>100%</u>					

Remarks: HEDHEL v. dissected leaf. Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP6**

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						SiL	
6-14	10YR 3/2	90	10YR 4/6	10	C	M	SiL	
14-19	10YR 4/2	85	10YR 4/6	15	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"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	wetland hydrology must be present,
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	unless disturbed or problematic.

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<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? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks: _____ Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 7/6/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP7
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 2
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.512031 Long: -122.865030 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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 <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			
Precipitation prior to fieldwork: <u> </u>					
Remarks: <u>Paired plot with SP6.</u>					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>75%</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>80%</u> (A/B)	
<u>75%</u> = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)					
1. <u>Crataegus monogyna</u>	<u>30%</u>	<u>Yes</u>	<u>FAC</u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u>	
2. <u>Rosa species</u>	<u>20%</u>	<u>Yes</u>	<u>FAC ?</u>		
3. <u>Symphoricarpos albus</u>	<u>20%</u>	<u>Yes</u>	<u>FACU</u>		
4. <u>Fraxinus latifolia</u>	<u>10%</u>	<u>No</u>	<u>FACW</u>		
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>80%</u> = Total Cover				OBL species <u>0</u> x 1 = <u>0</u>	
Herb Stratum (Plot size: <u>5' r</u>)					
1. <u>Camassia leichtlinii</u>	<u>30%</u>	<u>Yes</u>	<u>FACW</u>	FACW species <u>115</u> x 2 = <u>230</u>	
2. <u>Agrostis species</u>	<u>5%</u>	<u>No</u>	<u>FAC ?</u>	FAC species <u>58</u> x 3 = <u>174</u>	
3. <u>Bromus species</u>	<u>3%</u>	<u>No</u>	<u>FAC ?</u>	FACU species <u>25</u> x 4 = <u>100</u>	
4. <u>Galium aparine</u>	<u>2%</u>	<u>No</u>	<u>FACU</u>	UPL species <u>0</u> x 5 = <u>0</u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u>198</u> (A) <u>504</u> (B)	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u>2.55</u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators:	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>1</u> - Rapid Test for Hydrophytic Vegetation
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u>X</u> <u>2</u> - Dominance Test is >50%
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> <u>3</u> - Prevalence Index is ≤3.0 ¹
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u> <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
<u>40%</u> = Total Cover				<u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹	
Woody Vine Stratum (Plot size: <u>10' r</u>)					
1. <u>Rubus ursinus</u>	<u>3%</u>	<u>No</u>	<u>FACU</u>	<u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	¹ Indicators of hydric soil and wetland hydrology must be present.	
<u>3%</u> = Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>	
% Bare Ground in Herb Stratum <u>60%</u>					

Remarks: Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP7**

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					SiL	
4-11	10YR 3/2	90	10YR 4/6	10	C	M	SiL	
11-20	10YR 4/2	85	10YR 4/6	15	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"/> 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 checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input checked="" 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)	

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

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

Remarks: _____ Entered by: KS QC by: cmw

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

Project/Site: Panzer Nursery (17980 SW Baseline Road) City/County: Beaverton Sampling Date: 7/6/2022
 Applicant/Owner: Stanton Street Building Company LLC State: OR Sampling Point: SP8
 Investigator(s): Chris Moller, C. Mirth Walker Section, Township, Range: 06BC, 1S, 1W
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): Concave Slope (%): 1
 Subregion (LRR): A, Northwest Forests and Coasts Lat: 45.511993 Long: -122.864574 Datum: NAD 1983
 Soil Map Unit Name: Aloha Silt Loam (Unit 1) NWI classification: None
 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 <u> </u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Precipitation prior to fieldwork: <u> </u>					
Remarks: <u>SW of wet meadow.</u>					

VEGETATION

Tree Stratum (Plot size: <u>30' r</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <u>Fraxinus latifolia</u>	<u>70%</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)	
2. <u>Quercus garryana</u>	<u>10%</u>	<u>No</u>	<u>FACU</u>		
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata: <u>5</u> (B)	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>80%</u> = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)	
Sapling/Shrub Stratum (Plot size: <u>10' r</u>)					
1. <u>Symphoricarpos albus</u>	<u>40%</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u>	
2. <u>Crataegus monogyna</u>	<u>20%</u>	<u>Yes</u>	<u>FAC</u>		
3. <u>Rubus armeniacus</u>	<u>10%</u>	<u>No</u>	<u>FAC</u>		
4. <u>Rosa species</u>	<u>10%</u>	<u>No</u>	<u>FAC ?</u>		
5. <u>Amelanchier alnifolia</u>	<u>5%</u>	<u>No</u>	<u>FACU</u>		
<u>85%</u> = Total Cover				OBL species <u>15</u> x 1 = <u>15</u>	
Herb Stratum (Plot size: <u>5' r</u>)				FACW species <u>70</u> x 2 = <u>140</u>	
1. <u>Carex obnupta</u>	<u>15%</u>	<u>Yes</u>	<u>OBL</u>	FAC species <u>40</u> x 3 = <u>120</u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u>60</u> x 4 = <u>240</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	UPL species <u>0</u> x 5 = <u>0</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Column Totals: <u>185</u> (A) <u>515</u> (B)	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index = B/A = <u>2.78</u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>X</u> <u>2</u> - Dominance Test is >50% <u>X</u> <u>3</u> - Prevalence Index is ≤3.0 ¹ <u> </u> <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> <u>5</u> - Wetland Non-Vascular Plants ¹ <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present.	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
11. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>15%</u> = Total Cover					Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>
Woody Vine Stratum (Plot size: <u>10' r</u>)					
1. <u>Hedera helix</u>	<u>5%</u>	<u>Yes</u>	<u>FACU</u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
<u>5%</u> = Total Cover					
% Bare Ground in Herb Stratum <u>85%</u>					

Remarks: The only occurrence of CAROBN we saw in forest, about 10 plants. Entered by: KS QC by: cmw

SOIL

Sampling Point: **SP8**

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		
0-5	10YR 3/2	100					SiL	
5-12	10YR 3/2	90	10YR 4/6	10	C	M	SiL	
12-17	10YR 4/2	80	10YR 4/6	20	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"/> 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 checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<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)	

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

Remarks: S = sand; Si = silt; C = clay; L = loam or loamy; co = coarse; f = fine; vf = very fine; + = heavy (more clay); - = light (less clay)

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<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? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks: Moist forest only. No ORC, not FAC-Neutral test. Entered by: KS QC by: cmw

Appendix D

Ground-Level Site Photographs

Photo Point Location Map



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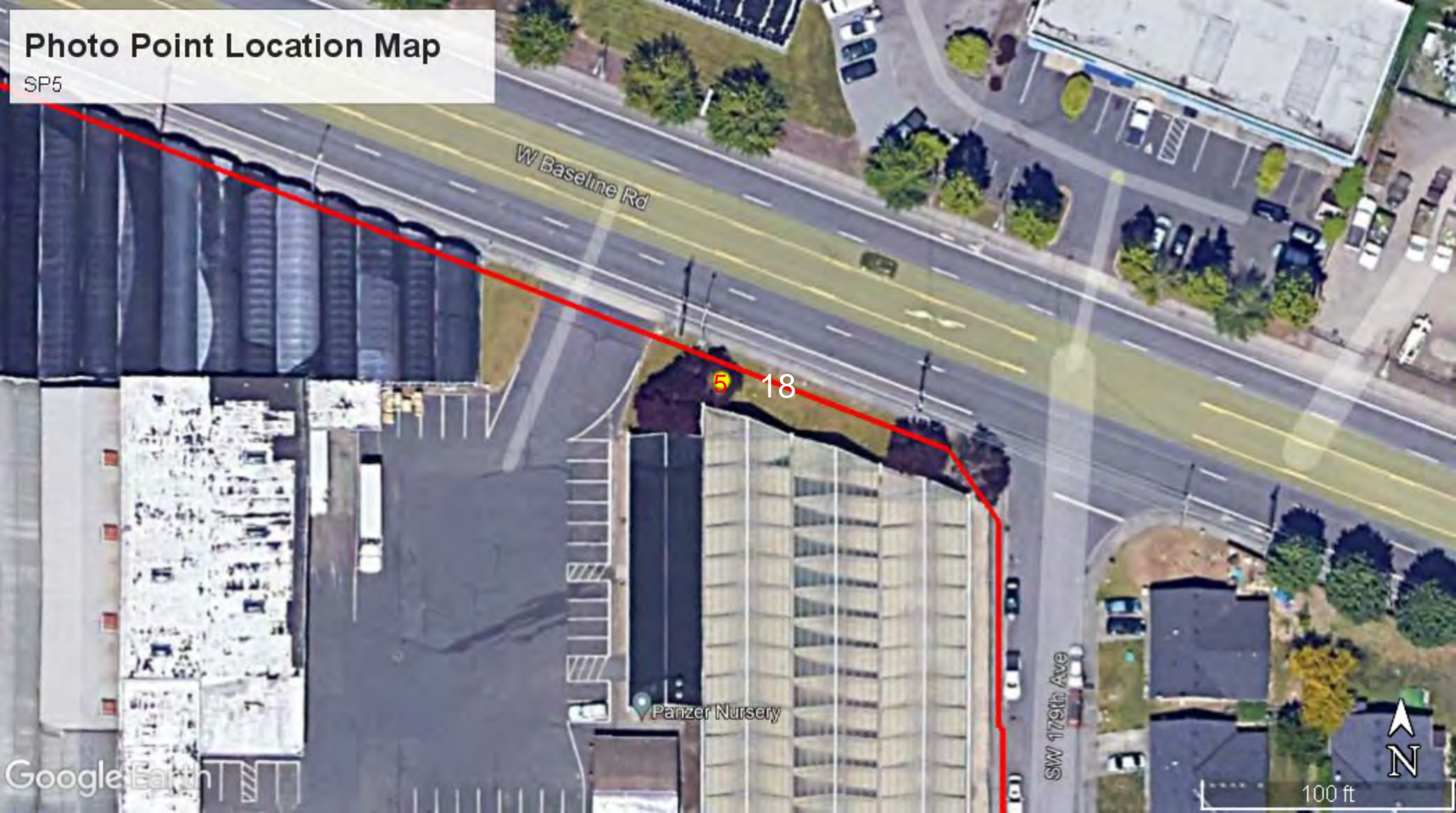
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16



Photo Point Location Map

SP5



W Baseline Rd

5 18

Panzer Nursery

SW 175th Ave

Google Earth





Photo Point 1. View north of wetland plot SP1. Photographed June 29, 2022.



Photo Point 2. View northwest of upland plot SP2. Photographed June 29, 2022.



Photo Point 3. Large camas (*Camassia leichtlinii*) with seedpods (identified by height). It was a consistent factor throughout the wetland. Toad rush (*Juncus bufonius*) was also present. Photographed June 29, 2022.



Photo Point 4. Blue-eyed grass (*Sisyrinchium* sp.) in emergent portion of wetland. Photographed June 29, 2022.



Photo Point 5. View southeast of emergent portion of wetland (note cut Oregon ash [*Fraxinus latifolia*] stumps). Photographed June 29, 2022.



Photo Point 6. View north of emergent portion of wetland showing wetland plot SP1 (yellow flag) and pink wetland boundary flags. Photographed July 6, 2022.



Photo Point 7. View north of emergent wetland–upland boundary flags.
Photographed July 6, 2022.



Photo Point 8. View south of SP2 and SP1 and pink wetland boundary flags
Photographed July 6, 2022.



Photo Point 9. View north of wetland plot SP3. Photographed June 29, 2022.



Photo Point 10. View west of upland plot SP4 location underneath red and white streamers. Photographed July 6, 2022.



Photo Point 11. View southeast of typical forested wetland. Photographed July 6, 2022.



Photo Point 12. View south of western edge of wetland, defined by fill. Photographed July 6, 2022.



Photo Point 13. Interior view of wetland showing dead camas leaves.
Photographed July 6, 2022.



Photo Point 14. Giant white trillium (*Trillium albidum*) in wetland forest.
Photographed July 6, 2022.



Photo Point 15. View north of upland from the south of site. Photographed July 6, 2022.



Photo Point 16. View east of upland in the southeast corner of the site. Photographed July 6, 2022.



Photo Point 17. View north of eastern berm separating forest from residential area. Photographed July 6, 2022.



Photo Point 18. View west of upland plot SP5 on mound of fill. Photographed June 29, 2022.

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Appendix E
Vegetation List

**Panzer Nursery
Vegetation List
June 29 and July 6, 2022**

Common Name	Scientific Name	Wetland Indicator Status	Native and Invasive, Noxious
bent grass	<i>Agrostis species</i>	FAC ?	-
Saskatoon service-berry	<i>Amelanchier alnifolia</i>	FACU	native
European weeping birch	<i>Betula pendula</i>	FACU	non-native
California brome	<i>Bromus carinatus</i>	NOL	native
brome	<i>Bromus species</i>	FAC to UPL	-
large camas	<i>Camassia leichtlinii</i>	FACW	native
slough sedge	<i>Carex obnupta</i>	OBL	native
bull thistle	<i>Cirsium vulgare</i>	FACU	invasive, noxious
English hawthorn	<i>Crataegus monogyna</i>	FAC	non-native
Queen Anne's-lace	<i>Daucus carota</i>	FACU	non-native
fringed willowherb	<i>Epilobium ciliatum</i>	FACW	native
Oregon ash	<i>Fraxinus latifolia</i>	FACW	native
sticky-willy, catchweed bedstraw	<i>Galium aparine</i>	FACU	native
cutleaf geranium	<i>Geranium dissectum</i>	NOL	non-native
English ivy	<i>Hedera helix</i>	FACU	invasive, noxious
common velvet grass	<i>Holcus lanatus</i>	FAC	non-native
common St. John's-wort	<i>Hypericum perforatum</i>	FACU	noxious
hairy cat's-ear	<i>Hypochaeris radicata</i>	FACU	non-native
English holly	<i>Ilex aquifolium</i>	FACU	non-native
toad rush	<i>Juncus bufonius</i>	FACW	native
spreading rush	<i>Juncus patens</i>	FACW	native
lesser poverty rush	<i>Juncus tenuis</i>	FAC	native
common nipplewort	<i>Lapsana communis</i>	FACU	non-native
perennial rye grass	<i>Lolium perenne</i>	FAC	non-native
Oregon crabapple	<i>Malus fusca</i>	FACW	native
king's-cureall, common evening primros	<i>Oenothera biennis</i>	FACU	native
Sitka spruce	<i>Picea sitchensis</i>	FAC	native
annual blue grass	<i>Poa annua</i>	FAC	non-native
licorice fern	<i>Polypodium glycyrrhiza</i>	NOL	native
sweet cherry	<i>Prunus avium</i>	FACU	non-native
cherry	<i>Prunus species</i>	FACU/NOL	-
Douglas-fir	<i>Pseudotsuga menziesii</i>	FACU	native
Oregon white oak	<i>Quercus garryana</i>	FACU	native
rhododendron, azalea	<i>Rhododendron species</i>	FAC ?	-
Nootka rose	<i>Rosa nutkana</i>	FAC	native
rose	<i>Rosa species</i>	FAC to UPL	-
California dewberry or trailing blackberry	<i>Rubus ursinus</i>	FACU	native
curly dock	<i>Rumex crispus</i>	FAC	non-native

Common Name	Scientific Name	Wetland Indicator Status	Native and Invasive, Noxious
blue-eyed grass	<i>Sisyrinchium species</i>	OBL to FAC	native
Douglas' meadowsweet, Douglas spirea	<i>Spiraea douglasii</i>	FACW	native
common snowberry	<i>Symphoricarpos albus</i>	FACU	native
common dandelion	<i>Taraxacum officinale</i>	FACU	non-native
fragrant fringecup	<i>Tellima grandiflora</i>	FACU	native
western arborvitae (western red cedar)	<i>Thuja plicata</i>	FAC	native
suckling clover	<i>Trifolium dubium</i>	FACU	non-native
white clover	<i>Trifolium repens</i>	FAC	non-native
giant white trillium	<i>Trillium albidum</i>	FACU	native

Wetland Indicator Status and taxonomy for the Western Mountains, Valleys, and Coast Region per the National Wetland Plant List 2020 v3.5 Accessed November 2, 2021 [NWPL Home v3.4-f9c \(army.mil\)](http://nwpl.home.army.mil)

Native per Hitchcock & Cronquist 2018 and PLANTS database

<http://plants.usda.gov/>

Invasive per Clean Water Services 2020

<http://cleanwaterservices.org/permits-development/design-construction-standards/>

Noxious per ODA 2021:

<https://www.oregon.gov/ODA/programs/Weeds/OregonNoxiousWeeds/Pages/AboutOregonWeeds.aspx>

WETLAND INDICATOR STATUS (WIS)	
OBL	Obligate Wetland Plant – Almost always occurs in wetlands (hydrophyte), rarely in uplands
FACW	Facultative Wetland Plant - Usually occur in wetlands (hydrophyte), but may occur found in non-wetlands
FAC	Facultative Plant – Occurs in wetlands (hydrophyte) and uplands (nonhydrophyte)
FACU	Facultative Upland Plant - Usually occur in non-wetlands (non-hydrophyte), but may occur in wetlands
UPL	Upland Plant - Almost always occurs in uplands (non-hydrophyte), almost never occurs in wetlands. UPL plants have a WIS in other regions
NOL	Not Listed - Plants that are not on the National Wetland Plant List are assumed to be UPL and have no WIS in any region