Wetland Delineation for the Palmberg Property, McCormick Gardens Road in Gearhart, Oregon

(Township 6 North, Range 10 West, Sections 3DC & 10AB)

Prepared for

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Prepared by

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I. INTRODUCTION

Pacific Habitat Services, Inc. (PHS) conducted a wetland delineation west of McCormick Gardens Road and north of Pacific Way in Gearhart, Oregon. The project area may include a future residential subdivision. Wetland delineation field work was initially conducted on December 11, 2017; however, a subsequent field review was conducted on March 11, 2018 to determine whether site conditions had changed appreciably during the intervening time and to collect most of the sample point data.

This report presents the results of PHS's wetland delineation. Figures, including a map depicting the location of wetlands within the study area, are located in Appendix A. Data sheets documenting on-site conditions are provided in Appendix B. Ground-level photos of the study area are in Appendix C. A discussion of the wetland delineation methodology is provided in Appendix D for the client.

II. RESULTS AND DISCUSSION

A. Landscape Setting and Land Use

The Palmberg property is the former location of Palmberg Paving Company. Utilization of the site appears to have been limited to the northern portion of the site only. Gravel and concrete pads and the asphalt or concrete access drives that can be observed on the site today were utilized by Palmberg Paving and likely date to the 1980's or early 1990's. The vicinity of the pond and areas to the south, east and west have been periodically mowed but otherwise not utilized. The west and northern extent of the property are dominated by shrub and forested wetlands located several feet in elevation lower than the remaining portions of the site. An approximately 4.7 acre pond located in the central portion of the site was excavated over time during the early to mid-60's when the property was under the management of a sand and gravel company.

The site's topography is gently rolling, with higher elevations located north and east of the pond. Though the forested and shrub wetlands appear to be located in areas with native soil, much of the rest of the site includes a mix of fine sand and sandy loam with varying percentages of gravel and cobble sized aggregate. Past mining and paving related land uses have resulted in a high degree of soil compaction, especially north of the pond to the forested portions of the site.

B. Site Alterations

As indicated above, the site has a history of intensive aggregate and paving land uses. As a result, except for the forested and shrub wetland areas in the north and west, which were presumably too wet to access easily, the site has seen extensive alterations that date back to at least the mid 1950's. There has however been no apparent activity on the site for several years. The herbaceous portions of the site appear to be mowed regularly, primarily to allow access to the pond as it is a popular fishing spot for those with permission to access the site.

C. Precipitation Data and Analysis

The study area was initially delineated on December 11, 2017; no rainfall was recorded within 7 days, with approximately 1.8 inches falling the week prior to that. No precipitation fell on March 28, 2018 when the wetland boundary was confirmed, but approximately 1.43 inches of rain fell

during the preceding week. Total observed precipitation for the water year through March 28 was 54.04 inches, which is 106% of normal.

Table 1 compares the average monthly precipitation to the observed monthly precipitation at Astoria, Oregon in the months prior to and including PHS' wetland delineation field work. The table also compares the observed precipitation to the normal precipitation range, as identified in the NRCS WETS table for Clatsop County. As shown in Table 1, observed precipitation was somewhat below normal for winter and early spring but well above normal for the preceding fall. Despite the variability, onsite hydrologic conditions were still considered to be typical for this time of year.

		30% Chanc	e Will Have		_
Month	Average Precipitation ¹	Less Than Average ¹	More Than Average ¹	Observed Precipitation ²	Percent of Normal
September	2.61	1.00	3.16	3.15	121%
October	5.61	3.27	6.82	8.94	159%
November	10.50	7.60	12.39	14.16	135%
December	10.40	7.62	12.23	7.96	77%
January	9.62	6.41	11.52	11.36	118%
February	7.87	5.57	9.32	7.25	92%
March	7.36	5.63	8.56	4.64	63%

Table 1:Comparison of average and observed monthly precipitation at the Astoria Regional
Airport weather station (OR224), both prior to and inclusive of both field dates.

Notes: 1. Source: NRCS WETS Table, Clatsop County, Astoria Regional Airport (http://agacis.rcc-acis.org/41007/wets)
2. Source: National Weather Service for Astoria (http://www.weather.gov/climate/index.php?wfo=pqr)

D. Methods

PHS delineated the limits of the jurisdictional wetlands in the study area based on the presence of wetland hydrology, hydric soils, and hydrophytic vegetation, in accordance with the Routine Onsite Determination, as described in the *Corps of Engineers Wetland Delineation Manual*, *Wetlands Research Program Technical Report Y-87-1* ("The 1987 Manual") and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region.* PHS conducted the wetland delineation on December 11, 2017 and returned for most of the data collection on March 28, 2014. The time differential between the two site visits allowed for confirmation of the wetland boundaries near the beginning and middle of the winter season. In light of subtle changes in conditions, a portion of the eastern boundary of Wetland B was modified, and three additional features (Wetlands F, H and I) were delineated on March 28.

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

PHS identified the potentially jurisdictional limits of wetlands and other waters within the study area. Descriptions of the delineated resources are provided below.

<u>Pond</u>

The large pond that encompasses nearly half of the southern extent of the study area was excavated in the late 1950's by a sand and gravel operation. After excavation is was not backfilled and as a result of the regional shallow water table, it remains ponded year round, with an apparent small rise in water levels driven by seasonal precipitation. The Cowardin classification is palustrine unconsolidated bottom, permanently flooded, excavated (PUBHx). The area of the pond, which was identified to its outlet at a west flowing ditch north of Pacific Way at the south end of the site, is 204,943 square feet (4.69 acres).

The pond itself has little vegetation, though pond lily (likely yellow pond-lily; *Nuphar lutea* OBL) is present along some of the pond edge. The pond's bank includes red alder (*Alnus rubra*, FAC), along with mixed grasses, Himalayan blackberry (*Rubus armeniacus*, FAC), and slough sedge (Carex obnupta, OBL).

Wetland A

Wetland A is a large forested wetland that encompasses the north end of the site and extends offsite to the north. Given its undulating topography, its hydrology appears to be driven by regional water table fluctuations, resulting in seasonal ponding across much of its extent. The Cowardin classification is palustrine forested, seasonally flooded (PFOC). The HGM classification is Slope. The total area of Wetland A within the study area is 124,464 square feet (2.86 acres), but this total is a small part of a much larger wetland.

Sample points 31, 33, 35, and 37 all document wetland conditions within this forested area. The western-central portion of the wetland lies several feet in elevation below that of the eastern portion. As a result, the western area is dominated primarily by Hooker's willow (*Salix hookeriana*, FACW). Though other species of willow are likely present, no other individual species were documented. Primary herbaceous species includes slough sedge. This western portion appears to remain perennially, albeit shallowly, inundated. To the east the mostly closed canopy is comprised largely of red alder, with Hooker's willow common within and adjoining the lowest elevations, and Sitka spruce (*Picea sitchensis*, FAC) common in higher elevations. Shrub and herbaceous cover varies with the wettest, seasonally inundated areas dominated by Douglas spirea (*Spiraea douglasii*, FACW), slough sedge and skunk cabbage (*Lysichiton americanus*, OBL).

Wetland B

Wetland B is a mixed forested, shrub and herbaceous wetland that encompasses the western quarter of the site. Like Wetland A, its western limits are seasonally flooded. Its eastern portion however is unlikely to be inundated and is as a result only seasonally saturated. The wetland therefore has multiple Cowardin classes PFO/SSC for the western portion and PEMY for the eastern third. The HGM classification for the entirety of the wetland is Slope.

In general the forested portion comprises the westernmost 75 to 100 feet, beginning along the western lot line, transitioning to a mixed willow shrub wetland that continues eastward. At the north end of the wetland the eastern limits of the wetland are truncated by a slope break comprised of several feet of mixed aggregate material. Further south the break is less distinct and the shrub community transitions to herbaceous species; primarily slough sedge, reed canarygrass (*Phalaris arundinacea*, FACW), common velvetgrass (*Holcus lanatus*, FAC), and other grass species that

could not be identified due to the early season and apparent grazing. The total area of Wetland B within the study area is 305,673 square feet (7.02 acres).

Wetland C

Wetland C is located west of the areas commonly utilized for paving company activities but is nonetheless in an area that has seen ground disturbance and compaction, even if not for several decades. The soils are comprised of highly compacted sands, commonly with gravel and/or small cobble. Though not utilized for staging or other active uses, the area has been mowed for several decades. Dominant vegetation in the wetland and the adjoining herbaceous upland includes mixed grasses, bird's foot trefoil (*Lotus corniculatus*, FAC), reed canarygrass, narrowleaf plantain (*Plantago lanceolata*, FAC) and slough sedge. It is likely that water shallowly ponds in the wetland during and immediately following precipitation events but infiltration is sufficient enough that such ponding would be ephemeral and not more than a couple inches deep. The Cowardin classification is palustrine emergent, saturated/semipermanent/seasonal (PEMY). The HGM classification is flats. The total area of Wetland C is 10,285 square feet (0.24 acre).

Wetland D

Wetland D is a small herbaceous wetland located beneath the forest canopy within a larger area of upland forest south of Wetland A. Its boundaries are defined by a narrow depression. Given the site's history of disturbance is it assumed that the feature is the result of excavation that occurred decades ago. The wetland is vegetated almost entirely by slough sedge, but also includes salmonberry (*Rubus spectabilis*, FAC), water parsley (*Oenanthe sarmentosa*, OBL), and creeping buttercup (*Ranunculus repens*, FAC). Despite the presence of 3 inches of standing water in late March 2018, as well as evidence that water depths were previously even deeper, the soils lack common hydric soil indicators. Its hydrology appears to be driven by local water table fluctuations, resulting in seasonal ponding in this area of lower topography. The Cowardin classification is palustrine emergent, despite the forested overstory. The wetland appears subject to intermittent flooding. The corresponding Cowardin class is PEMJ. The HGM classification is depressional closed, non-permanent (DCNP). The total area of Wetland D is 1,369 square feet (0.03 acre).

Wetlands E and F

Wetlands E and F are located within subtle depressions in the undulating topography that defines the areas north and northeast of the pond. Soils throughout this area are comprised of sandy loam to loamy sand, with some areas including gravel or cobble. Both features intersect a groundwater elevation that is believed to be near or just above the water level elevation of the pond. Wetland E is located at a lower elevation and as a result shallow ponding appears to be common. Dominant vegetation in Wetland E includes reed canarygrass. Wetland F lies a bit higher topographically and there is no evidence of surface ponding. Rather Wetland F has a water table that extends to within 12 inches of the surface. Wetland F, like the adjoining uplands, is dominated by mixed grasses that could not be identified due to a combination of seasonality and grazing. Slough sedge is a common to locally abundant species in the vicinity of both wetlands. The Cowardin classification of each is palustrine emergent, saturated/semipermanent/seasonal (PEMY). The HGM classification of each is flat. Both wetlands are approximately 0.03 acre in size.

Wetland G

Wetland G includes an area of depressed topography located south of a gravel access drive to the interior of the site. Though likely created in part through excavation, the wetland area extends above the limits of apparent excavation and includes adjoining areas. The feature is separated from Wetland H to the east by a narrow berm. The western extent of Wetland G is dominated by slough sedge, mixed grasses and horsetail (*Equisetum sp.*, FAC to FACW). The central and eastern portions include the same herbaceous species, but also include red alder trees and shrubs, salmonberry, and Himalayan blackberry. The Cowardin classification is accordingly palustrine forested and emergent saturated/semipermanent/seasonal (PFO/EMY). The HGM classification is Slope. The total area of Wetland G is 3,254 square feet (0.07 acre).

Wetlands H and I

Wetlands H and I are located west of McCormick Gardens Road. They are certain to convey stormwater runoff from the road but are much wider than other ditches in the area and at the time of data collection the ditches were ponding water; there was little evidence of directional flow. Culverts connect these wetlands to each other as well as to other ditches to the north and south. Primarily herbaceous in character, these wetlands are vegetated with a mix of bulrush (*Scirpus microcarpus*, OBL), slough sedge, reed canarygrass, and other sedges. The Cowardin classification of each is palustrine emergent, seasonally flooded (PEMC). The HGM classification of each is slope. Together the wetlands total approximately 0.09 acre in size.

F. Deviation from LWI or NWI

The City of Gearhart Local Wetlands Inventory (LWI) identifies several large areas of wetland (W6), as well as the pond. Though generally comparable to the results of the PHS delineation, wetlands are in actuality more or less extensive than mapped. The forest and shrub wetlands west of the site extend much closer to the pond than indicated by the LWI. The opposite is true to the south, where there is an island of upland between the pond and its outlet; a west flowing ditch that parallels Pacific Way. Similarly there are fewer forested wetlands to the north and the delineated boundary is much more convoluted than the LWI boundary would suggest. There is not a large wetland connected to the northeast portion of the pond as suggested by the LWI, though PHS did delineate several smaller wetlands in the same landscape position.

LWI maps are generated primarily through the interpretation of aerial photographs (scale of 1:58,000), with field verification largely dependent on site accessibility. It appears that site access was not allowed for the inventory, as there are no sample points within the project area. The site's subtle but somewhat undulating topography does not lend itself to the accurate determination of wetland boundaries from offsite observation only.

G. Mapping Method

PHS flagged the wetland boundaries with blue flagging. Data points were flagged with lime green surveyor's tape. The wetland boundary flagging was survey-located by OTAK, Inc. The estimated accuracy of the survey is sub-centimeter, with most of the sample points having an accuracy of +/-3 feet. Due to the density of blackberries along the southern portion of the eastern pond edge, in combination with the steepness of the pond edge and proximity to private property owned by an adjoining land owner, the last 250 feet of the southern edge of the pond were not flagged. As a result of the steepness of the slope, the pond edge is readily identifiable on LIDAR. As the LIDAR pond edge was comparable to the flagged boundary where PHS had access, the

LIDAR information was deemed to be an accurate representation of the pond edge. The accuracy of the pond edge were LIDAR was utilized is estimated at +/-5 feet.

H. Additional Information

None

I. Results and Conclusions

PHS delineated all or a portion of nine wetlands and an excavated pond within the study area. The total area of wetlands and other waters within the project area is approximately 15.05 acres, as shown in Table 2.

Feature	Area Sq. ft. / Acre	Cowardin Class	HGM Class
Pond	204,943 / 4.69	PUBHx	DO
Wetland A	124,434 / 2.86	PFOC	Slope
Wetland B	305,673 / 7.02	PFO/SSC & PEMY	Slope
Wetland C	10,285 / 0.24	PEMY	Flat
Wetland D	1,369 / 0.03	PEMJ	DCNP
Wetland E	1,214 / 0.03	PEMY	Flat
Wetland F	327 / 0.007	PEMY	Flat
Wetland G	3,254 / 0.07	PFO/EMY	Slope
Wetland H	1,684 / 0.04	PEMC	Slope
Wetland I	2,239 / 0.05	PEMC	Slope
Total Wetlands:	450,509 sq. ft. (10.34 acres)		
Total Other Waters:	204,943 sq. ft. (4.69 acres)		

 Table 2:
 Summary of Wetlands and Other Waters within the Project Site

J. Required Disclaimer

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

III. REFERENCES

- Adamus, P.R. and D. Field. 2001 Guidebook for Hydrogeomorphic (HGM)-based Assessment of Oregon Wetland and Riparian Sites. Willamette Valley Ecoregion, Riverine Impounding and Slopes/Flats Subclasses. Oregon Division of State Lands, Salem, OR.
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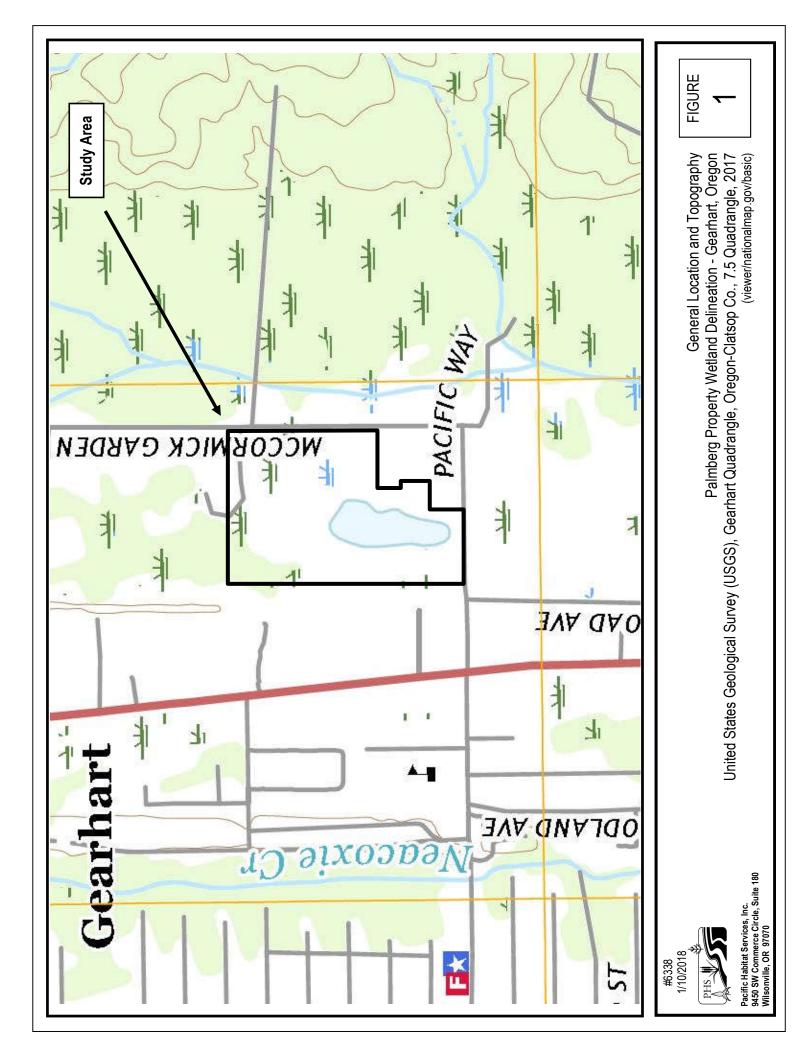
National Weather Service for Astoria, 2018. (http://www.weather.gov/climate/index.php?wfo=pqr)

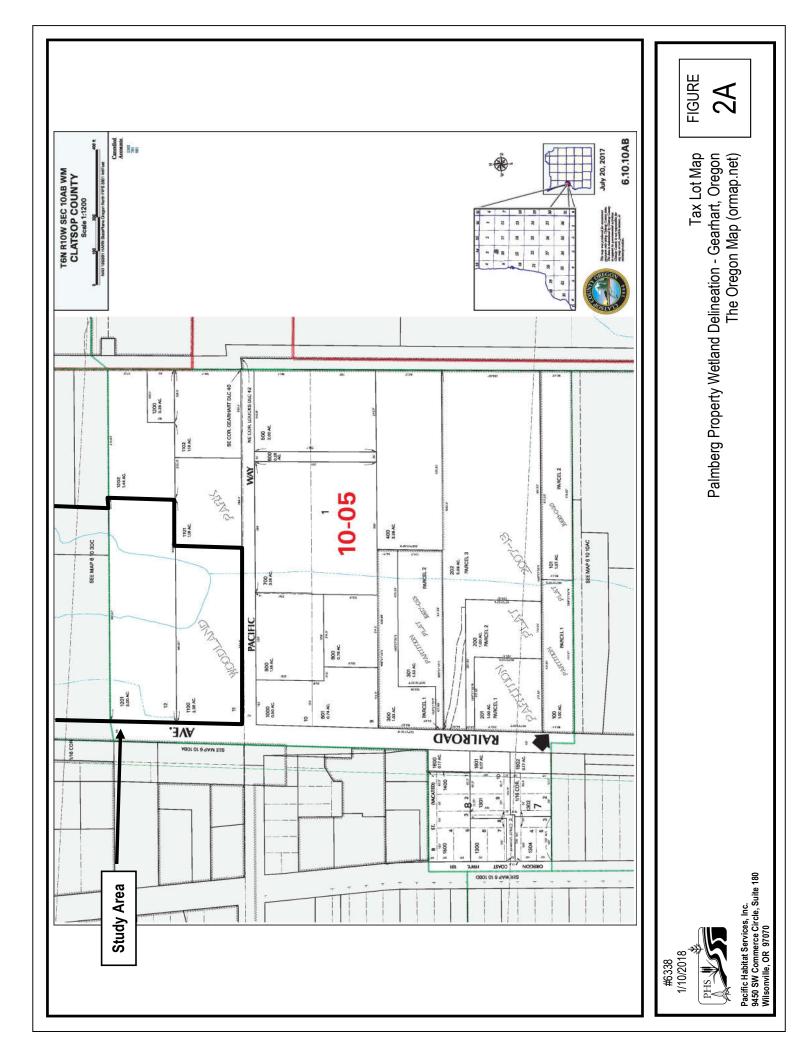
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- NRCS Web Soil Mapper 2018. Soil Survey of Clatsop County, Oregon. <u>http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</u>
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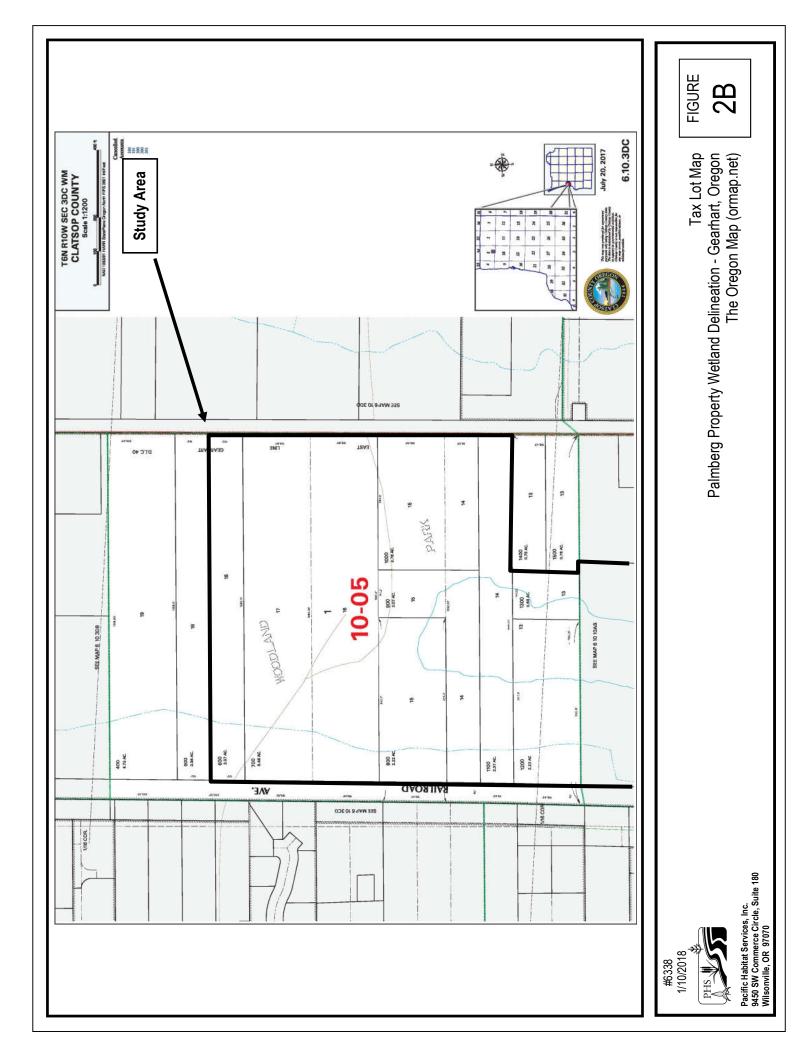
Appendix A

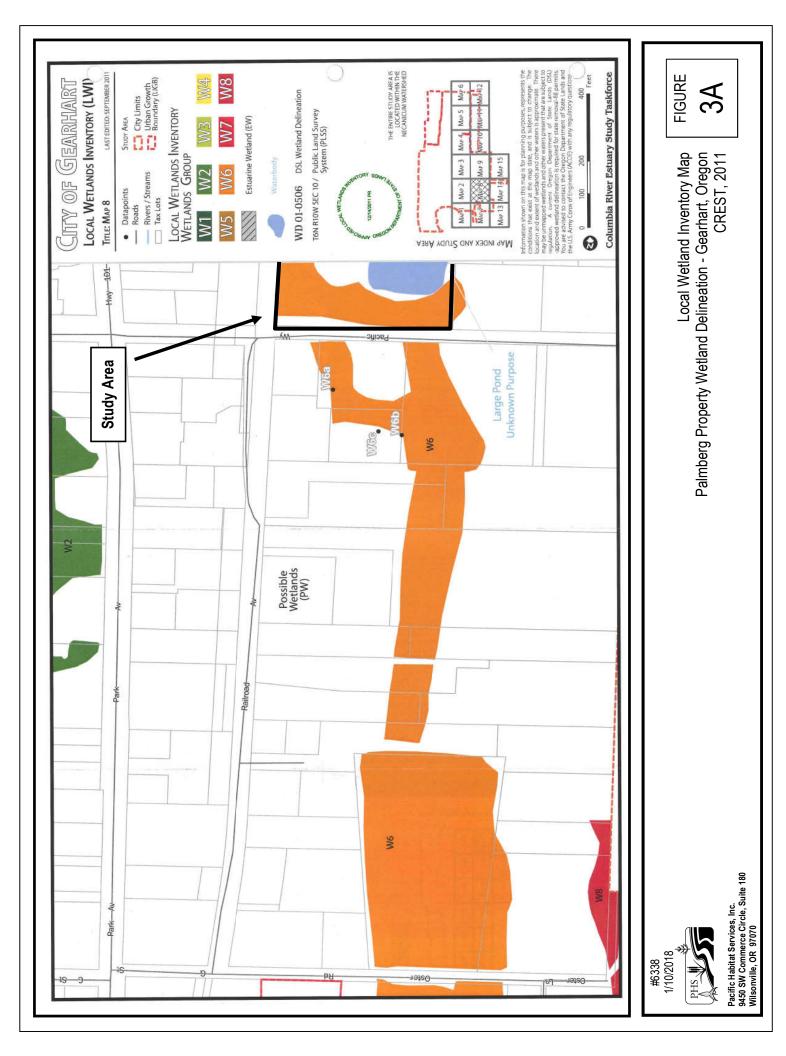
Figures

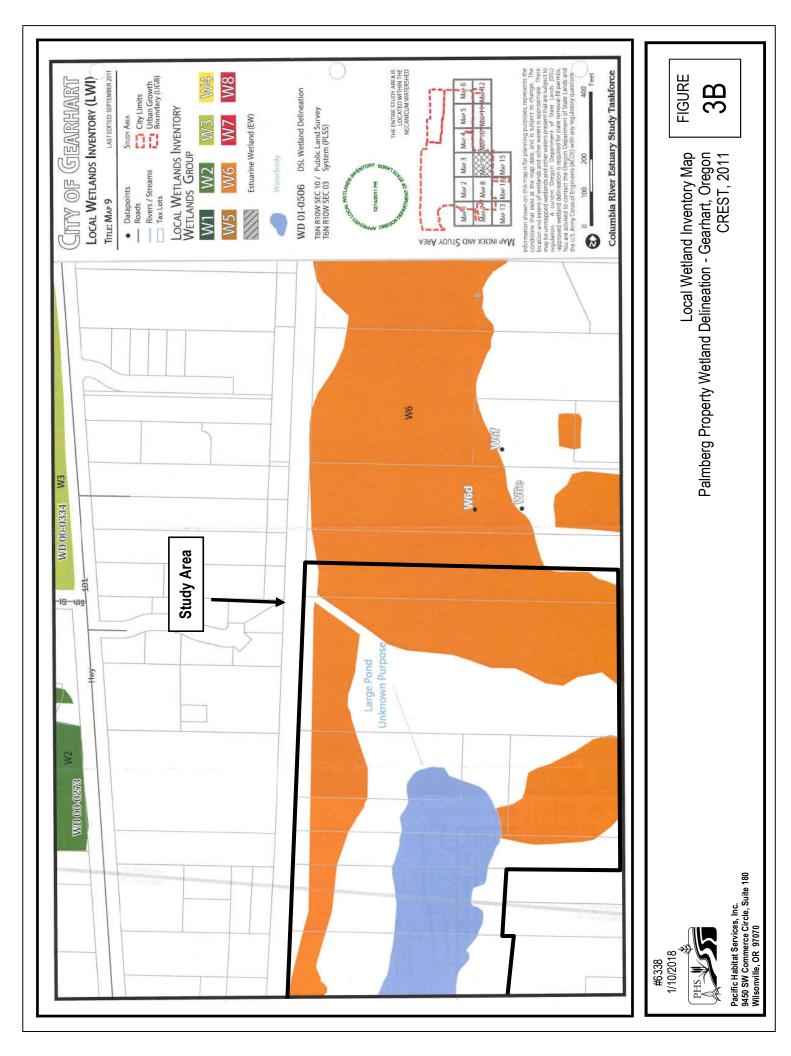


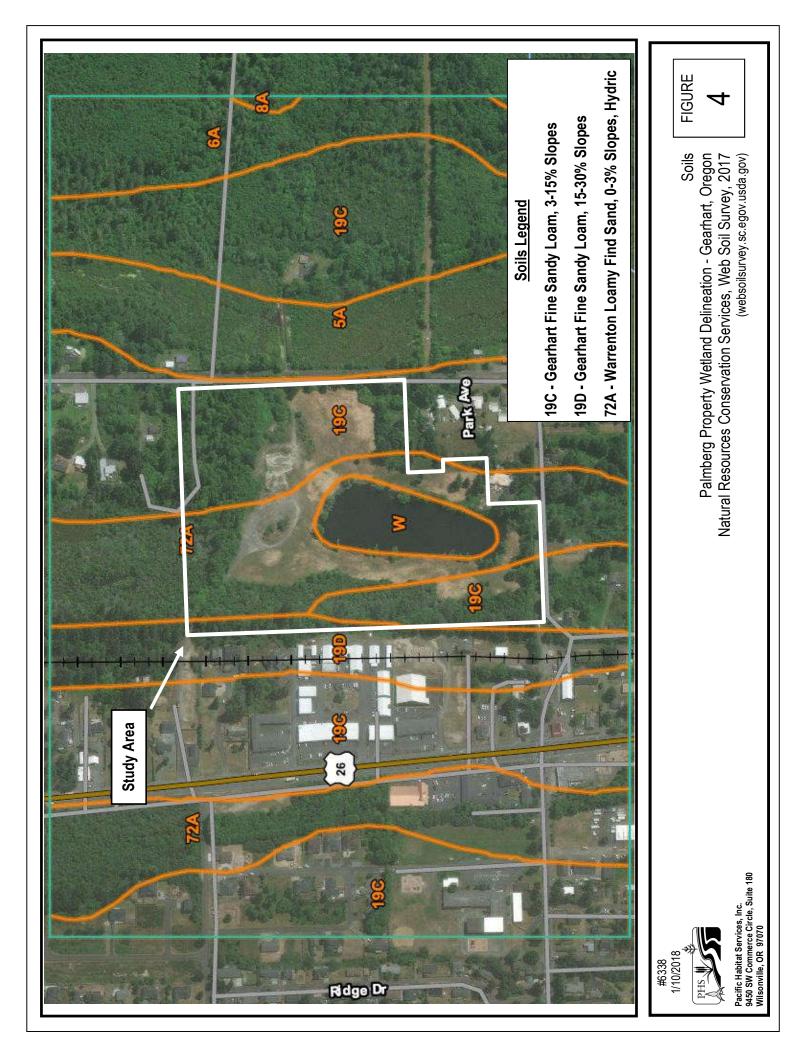


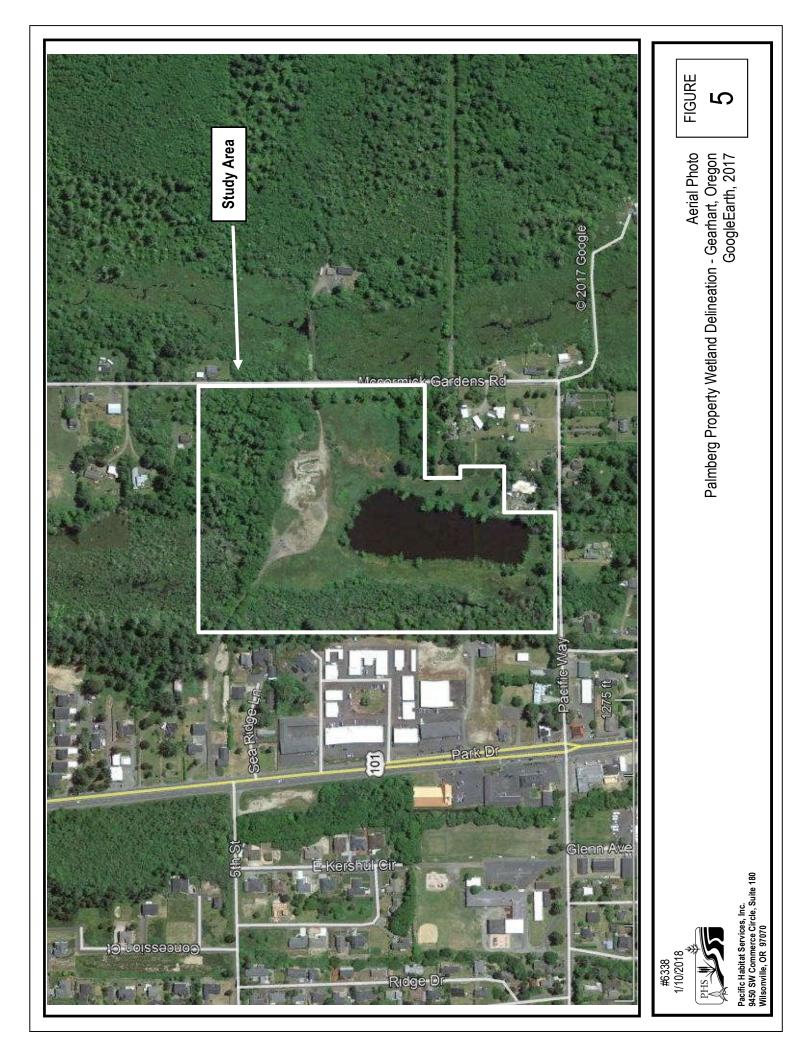


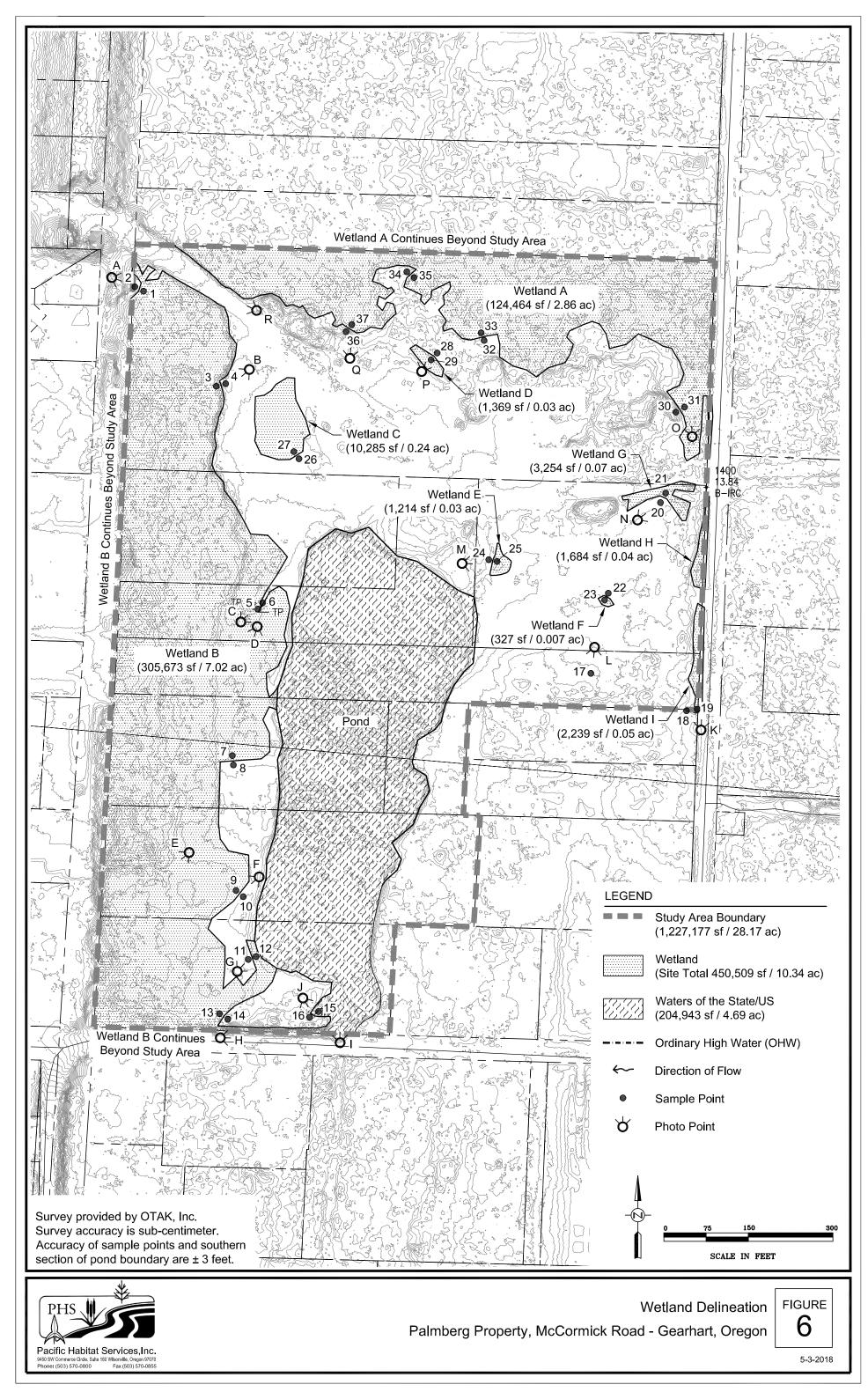












Appendix B

Wetland Determination Data Sheets



V	VETLAND DET	ERMINATIO	N DATA FOI	RM - Weste	rn Mounta	ains, Valle	eys, an	d Coast	Region	
roject/Site:	Palmberg Prop	perty	City/County:	Gea	rhart/Clatso	р	Sampl	ing Date:	3/28	8/2018
pplicant/Owner:	Bill Palmberg					State:	OR	Sa	mpling Point:	1
vestigator(s):	SE/JT/CM	I/CR	Section, To	wnship, Range:		Section	10, Tow	nship 6N, F	ange 10W	
andform (hillslope, t	errace, etc.:)	Depressi	on	Local relief (cor	ncave, convex,	none):			Slope (%):	
ubregion (LRR):	LRF	RA	Lat:	46.02	8	Long:	-123	8.9095	Datum:	WGS84
oil Map Unit Name:		Gearhart F	— ine Sandy Loai	n		NWI Clas	sification:		None	
re climatic/hydrolog	ic conditions on the sit	e typical for this tir	ne of year?	Yes	х	No	•	(if no, explain	in Remarks)	
re vegetation	Soil or	Hydrology	significantly dist	urbed?	Are "Normal	Circumstance	es" present	t? (Y/N)	Y	
re vegetation	Soil or	Hydrology	naturally probler	matic? If needed	, explain any ar	nswers in Rem	narks.)			
			_							
UMMARY OF	FINDINGS – Att	ach site map	showing san	npling point	locations,	transects,	import	ant featur	es, etc.	
ydrophytic Vegetati		<u>X</u> No		Is Sampled Ar	ea within					
ydric Soil Present?	Yes	<u>X</u> No		a Wetlar		Yes	Х	No		
etland Hydrology P	resent? Yes	<u>X</u> No								
emarks:										
EGETATION	Use scientific n	amor of plan	te							
LOLIATION -		alles of plan absolute	Dominant	Indicator	Dominance	e Test work	sheet:			
		% cover	Species?	Status						
ree Stratum (plot	size: 30)			Number of Do	ominant Speci	ies			
Thuja plicata		50	Χ	FAC	That are OBL	, FACW, or F	AC:	4	1	(A)
Alnus rubra		20	<u> </u>	FAC						
Tsuga sp.		10		(FACU)		r of Dominant			_	
l					Species Acro	ss All Strata:			1	(B)
		80	= Total Cover							
apling/Shrub Stratu)			Percent of Do					
Rubus specta		40	<u> </u>	FAC	That are OBL	., FACW, or F	AC:	10	0%	(A/B)
Gaultheria sh	allon	5		FACU	Broyalana	Index Wee	kohoot:			
3 1					Total % Cove	e Index Wor		Multiply by:		
5					OBL Sp		•	x 1 =	0	
		45	= Total Cover		FACW s			x 2 =	0	
					FAC Sp	·		x 3 =	0	
erb Stratum (plot)			FACU S	pecies		x 4 =	0	
Carex obnupt	ła	100	Χ	OBL	UPL Sp	ecies		x 5 =	0	
					Column	Totals	0	(A)	0	(B)
3								# D1		
					Prevale	nce Index =B/	/A =	#DI	V/0!	
5 					Hydrophyti	ic Venetatio	on Indica	itors:		
7									nytic Vegetatio	n
3					-			ce Test is >5(
		100	= Total Cover			3-	-Prevalenc	e Index is ≤ 3	.0 ¹	
						4	-Morpholog	gical Adaptati	ons ¹ (provide s	supporting
oody Vine Stratum	(plot size:)							separate sheet	i)
								Non-Vascular		
					1				Vegetation ¹ (E	
		0	= Total Cover		'Indicators of disturbed or p		d wetland	hydrology mu	st be present,	unless
					Hydrophyti					

SOIL			PHS #	633	8			Sampling Point: 1
-	ption: (Describe to	the depth	needed to docume			nfirm the absen	ce of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	Redox F %	-eatures Type ¹	Loc ²	Texture	Remarks
0-4	10YR 2/1	96	5YR 3/4	4	C	PL	Loamy Sand	
4-12	10YR 2/1	100	511(0/4	<u> </u>	0		Loamy Sand	
		100						
				<u> </u>				
¹ Type: C=Conc	entration, D=Deplet	ion, RM=R	educed Matrix, CS=0	Covered or C	oated Sar	nd Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Appl	icable to	all LRRs, unless	s otherwis	e noted.)	Indic	ators for Problematic Hydric Soils ³ :
ł	Histosol (A1)			Sa	andy Redo	ox (S5)		2 cm Muck (A10)
H	Histic Epipedon (A2)			St	ripped Ma	trix (S6)		Red Parent Material (TF2)
E	Black Histic (A3)			Lo	amy Mucl	ky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
<u> </u>	Hydrogen Sulfide (A	4)		Lo	amy Gley	ed Matrix (F2)		Other (explain in Remarks)
[Depleted Below Dark	surface (A11)	De	epleted Ma	atrix (F3)		
	Thick Dark Surface (A12)		Re	edox Dark	Surface (F6)		
	Sandy Mucky Minera	ıl (S1)		De	epleted Da	ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix	: (S4)		Re	edox Depr	essions (F8)		hydrology must be present, unless disturbed or problematic.
Restrictive L	_ayer (if present)	:						
Туре:								
Depth (inches):						Hydric Soil Pres	sent? Yes X No
HYDROLO								
-	drology Indicator							
	ators (minimum o	of one rec	uired; check all tr	11.77	otor otoin	ad Leaves (PO) (Secondary Indicators (2 or more required)
	Surface Water (A1) High Water Table (A	2)			2, 4A, an	ed Leaves (B9) (d 4B)	Ехсері міка	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
5	Saturation (A3)			Sa	alt Crust (E	311)		Drainage Patterns (B10)
\	Water Marks (B1)			A	quatic Inve	ertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		H	ydrogen S	ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9
[Drift Deposits (B3)			O	xidized Rh	izospheres alon	g Living Roots (C3)	X Geomorphic Position (D2)
	Algal Mat or Crust (B	4)		Pr	esence of	Reduced Iron (C4)	Shallow Aquitard (D3)
I	ron Deposits (B5)			Re	ecent Iron	Reduction in Plo	owed Soils (C6)	Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)		St	unted or S	Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
I	nundation Visible or	Aerial Ima	igery (B7)	O	ther (Expla	ain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Observ	vations:							
Surface Water	Present? Yes	х	No	Depth (ir	nches):	2		
Water Table Pr	resent? Yes	х	No	Depth (ir	nches):	0	Wetland Hyd	rology Present?
Saturation Pres (includes capillar		X	No	Depth (ir	iches):	0		Yes X No
Describe Reco	rded Data (stream g	auge, mon	itoring well, aerial ph	notos, previou	is inspecti	ons), if available	:	
Remarks:								

	Delast		, under a	01.10	~	whent/Claters			0/0040
roject/Site:	Palmbe	•	rty	City/County:	Gea	rhart/Clatsop	Sampling Date:		8/2018
plicant/Owner:	Bill Palmb					State:		Sampling Point:	
/estigator(s):		JT/CM/C		-	wnship, Range:		10, Township 6	-	
ndform (hillslope,	terrace, etc.:)		Terrace			ncave, convex, none):	Convex	Slope (%):	
Ibregion (LRR):		LRR		Lat:	46.02	8 Long:	-123.9095	Datum:	WGS84
oil Map Unit Name:				ne Sandy Loa	m		ssification:	None	
e climatic/hydrolog	gic conditions c	on the site	typical for this tim	e of year?	Yes	X No	(if no, ex	plain in Remarks)	
e vegetation	Soil	or H	lydrology	significantly dis	urbed?	Are "Normal Circumstance	es" present? (Y/N)	<u> </u>	-
e vegetation	Soil	or H	lydrology	naturally proble	matic? If needed	l, explain any answers in Ren	narks.)		
UMMARY OF	FINDINGS	– Atta	ch site map :	showing sar	nplina point	locations, transects	. important fea	itures. etc.	
drophytic Vegetati		Yes	No	X			,		
dric Soil Present?		Yes	No	<u> </u>	Is Sampled A a Wetla	N/		No X	
etland Hydrology F		- Yes	No	X	a wella	iu?			-
emarks:									
illains.									
EGETATION ·	- Use scier	ntific na	mes of plant	s.					
			absolute	Dominant	Indicator	Dominance Test work	(sheet:		
ee Stratum (plo	it size [.]	30	% cover	Species?	Status	Number of Dominant Spec	ies		
Tsuga sp.			, 80	х	(FACU)	That are OBL, FACW, or F		1	(A)
Alnus rubra			20	<u> </u>	FAC			•	
						Total Number of Dominant			
						Species Across All Strata:		3	(B)
			100	= Total Cover					_
pling/Shrub Stratu	<u>um</u> (plot size	e: 15)			Percent of Dominant Spec	ies		
Gaultheria sh	nallon		60	х	FACU	That are OBL, FACW, or I	FAC:	33%	(A/B)
						Prevalence Index Wo	rksheet:		
						Total % Cover of	Multiply b	by:	
						OBL Species	x 1 =		-
			60	= Total Cover		FACW species FAC Species	x 2 = x 3 =		-
erb Stratum (plo	ot size:	5)			FACU Species	x 3 - x 4 =		-
Carex obnup		'	´1		OBL	UPL Species	x 5 =		-
·						Column Totals	0 (A)	0	(B)
						-			-
						Prevalence Index =B	/A =	#DIV/0!	-
						Hydrophytic Vegetation	on Indicators:		
							- Rapid Test for Hyd		on
				- T-1 - 0			P- Dominance Test is		
			1	= Total Cover			-Prevalence Index i -Morphological Ada		supportina
oody Vine Stratum	n (plot size:)				lata in Remarks or c		
			_				- Wetland Non-Vas	-	-
						F	Problematic Hydroph	nytic Vegetation ¹ (E	Explain)
			0	= Total Cover		¹ Indicators of hydric soil an	d wetland hydrology	/ must be present,	unless
						disturbed or problematic.			
Bare Ground in He	erb Stratum		0			Hydrophytic Vegetation	Yes	No	

SOIL			PHS #	6338	_		Sampling Poir	nt:	1
Profile Description	on: (Describe to	the depth	needed to docume	nt the indicator or c	onfirm the abser	nce of indicators.)			
Depth	Matrix			Redox Features	. 2	_	_		
(Inches)	Color (moist)	%	Color (moist)	% Type'	Loc ²	Texture	Ren	narks	
0-16	10YR 2/1	100				Loamy Sand			
				. <u> </u>					
				Covered or Coated Sa			² Location: PL=Pore Lining		
Hydric Soil Ind	licators: (Appl	icable to	all LRRs, unless	s otherwise noted	i.)	Indic	ators for Problematic	-	s°:
Hist	tosol (A1)			Sandy Red	dox (S5)		2 cm Muck	(A10)	
Hist	tic Epipedon (A2)			Stripped M	latrix (S6)		Red Parent	Material (TF2))
Bla	ck Histic (A3)			Loamy Mu	cky Mineral (F1) (except MLRA 1)	Very Shallo	w Dark Surfac	e (TF12)
Hyd	lrogen Sulfide (A4	4)		Loamy Gle	eyed Matrix (F2)		Other (expla	ain in Remarks	3)
Dep	oleted Below Dark	Surface (A	A11)	Depleted N	Matrix (F3)				
Thio	ck Dark Surface (A12)		Redox Da	rk Surface (F6)		3		
Sar	ndy Mucky Minera	l (S1)		Depleted [Dark Surface (F7)		³ Indicators of hydrophytic hydrology must be prese	•	
Sar	ndy Gleyed Matrix	(S4)		Redox De	pressions (F8)		problem		
Restrictive Lay	/er (if present)	:							
Type:									
Depth (inches):						Hydric Soil Pres	sent? Yes	No	х
Remarks:									
HYDROLOG Wetland Hydro		'S:							
Primary Indicate	ors (minimum c	of one req	uired; check all th	nat apply)			Secondary Indicators	(2 or more i	required)
Sur	face Water (A1)			Water stai	ned Leaves (B9)	(Except MLRA	Water stain	ed Leaves (B9	9)
Hig	h Water Table (A	2)		1, 2, 4A, a	nd 4B)		(MLRA1, 2	, 4A, and 4B)	
Sat	uration (A3)			Salt Crust	(B11)		Drainage Pa	atterns (B10)	
Wa	ter Marks (B1)			Aquatic In	vertebrates (B13)		Dry-Season	Water Table	(C2)
Sec	liment Deposits (B	32)		Hydrogen	Sulfide Odor (C1))	Saturation \	/isible on Aeria	al Imagery (C
Drif	t Deposits (B3)			Oxidized F	Rhizospheres alon	ng Living Roots (C3)	Geomorphic	Position (D2))
Alga	al Mat or Crust (B	4)		Presence	of Reduced Iron (C4)	Shallow Aq	uitard (D3)	
Iron	Deposits (B5)			Recent Iro	n Reduction in Ple	owed Soils (C6)	Fac-Neutral	Test (D5)	
Sur	face Soil Cracks ((B6)		Stunted or	Stressed Plants	(D1) (LRR A)	Raised Ant	Mounds (D6) ((LRR A)
	ndation Visible on			Other (Exp	olain in Remarks)		Frost-Heave	e Hummocks (D7)
Spa	arsely Vegetated (Concave Si	urface (B8)						
Field Observat	ions:								
Surface Water Pre	esent? Yes		No <u>X</u>	Depth (inches):					
Water Table Pres	ent? Yes		No X	Depth (inches):	>16	Wetland Hyd	Irology Present?		
Saturation Presen (includes capillary fri			No X	Depth (inches):	>16		Yes	No	Х
Describe Recorde	u Data (stream ga	auge, moni	toring well, aerial pr	iotos, previous inspec	alons), il available	÷.			
lemarks:									
emarks:									

WETLAND) DETE	RMINATIO		RM - Weste	rn Mounta	ins. Vall	evs. and	d Coast	PHS # Region	6338
Project/Site: Palmbe			City/County:		rhart/Clatsop		•	ng Date:	-	3/2018
pplicant/Owner: Bill Palm	berg					State:	OR	Sa	ampling Point:	3
vestigator(s): SE	JT/CM/	CR	Section, To	wnship, Range:		Section	10, Town	ship 6N, F	Range 10W	
andform (hillslope, terrace, etc.:)			-	Local relief (cor	ncave, convex, r	none):			Slope (%):	
ubregion (LRR):	LRR	A	Lat:	46.02	8	Long:	46.0	274	Datum:	-123.9091
oil Map Unit Name:		Warrenton L	- oamy Fine Sa	nd		NWI Clas	sification:		None	
re climatic/hydrologic conditions o	on the site	typical for this tim	ne of year?	Yes	х	No	(if no, explain	in Remarks)	
re vegetation Soil	or H	ydrology	significantly dist	urbed?	Are "Normal (- Circumstance	es" present'	? (Y/N)	Y	
re vegetation Soil	or H	ydrology	naturally problem	matic? If needed	, explain any an	swers in Ren	narks.)			
· <u> </u>			_							
UMMARY OF FINDINGS	– Atta	ch site map	showing san	npling point	locations, t	ransects,	importa	int featur	es, etc.	
ydrophytic Vegetation Present?	Yes	X No		Is Sampled Ar	ea within					
ydric Soil Present?	Yes	X No		a Wetlan		Yes	Х	No		
etland Hydrology Present?	Yes	X No								
emarks:										
	Alfla ma	maa af ulaut	ha.							
EGETATION - Use scier	itific na	absolute	Dominant	Indicator	Dominance	Tost work	shoot.			
		% cover	Species?	Status	Dominance	Test work	Sileet.			
ee Stratum (plot size:	30)			Number of Do	minant Spec	ies			
Salix hookeriana		30	X	FACW	That are OBL,	FACW, or F	AC:	:	5	(A)
Alnus rubra		20	Х	FAC						
					Total Number	of Dominant				
l					Species Acros	s All Strata:	-		5	(B)
		50	= Total Cover							
apling/Shrub Stratum (plot siz	e: 10)			Percent of Do					
Lonicera involucrata		50	<u> </u>	FAC	That are OBL,	FACW, or I	AC:	10	0%	(A/B)
2 Rubus armeniacus		<u> </u>		FAC FACU	Prevalence	Inday Wa	dro h o o tu			
3 Rubus ursinus 4 Spiraea douglasii		1		FACU	Total % Cover			/lultiply by:		
		<u> </u>		1401	OBL Spe		<u>-</u>	x 1 =	- 0	
·		59	= Total Cover		FACW sp	-		x 2 =	0	
					FAC Spe			x 3 =	0	
erb Stratum (plot size:	5)			FACU Sp	becies		x 4 =	0	
Carex obnupta		70	Х	OBL	UPL Spe	ecies		x 5 =	0	
Phalaris arundinacea		25	<u> </u>	FACW	Column T	Totals	0 (A)	0	(B)
3							<i>.</i>	# DI		
5					Prevaler	nce Index =B	/A =	#DI	V/0!	
) 		·			Hydrophytic	. Vegetatio	on Indicat	ors:		
7					liyaropiiya	-			hytic Vegetatio	n
3								e Test is >5		
		95	= Total Cover			3	-Prevalence	e Index is ≤ 3	3.0 ¹	
									ons ¹ (provide s	
oody Vine Stratum (plot size:)							separate sheet	t)
								lon-Vasculai		
					1				Vegetation ¹ (E	
		0	= Total Cover			-	a wetland h	yarology mu	st be present,	uniess
					disturbed or n	roplematic				
					disturbed or pr Hydrophytic					

			PHS #		338			Sampling Point: 3
	ption: (Describe to t	he depth	needed to docume			nfirm the absen	ce of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	Redo %	x Features Type ¹	Loc ²	Texture	Remarks
0-5	10YR 3/3	95	7.5YR 3/4	5	<u> </u>	 M	Loamy Sand	Fine
5-13	2.5YR 3/1	97	5YR 3/4	3	 	M	Loamy Sand	Fine
	2.011(0/1		01110/4				Louiny ound	
						<u> </u>		
¹ Type: C=Cond	centration, D=Depletion	on, RM=Re	educed Matrix, CS=	Covered or	r Coated Sar	nd Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to	all LRRs, unles	s otherw	vise noted.)	Indic	ators for Problematic Hydric Soils ³ :
!	Histosol (A1)			X	Sandy Redo	ox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma	trix (S6)		Red Parent Material (TF2)
	Black Histic (A3)				Loamy Muc	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
'	Hydrogen Sulfide (A4)			Loamy Gley	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	Surface (A	A11)		Depleted Ma	atrix (F3)		
	Thick Dark Surface (A	A12)			Redox Dark	Surface (F6)		a
	Sandy Mucky Mineral	(S1)			Depleted Da	ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or
;	Sandy Gleyed Matrix	(S4)			Redox Depr	essions (F8)		problematic.
Restrictive	Layer (if present):							
Type:					_			
Depth (inches	s):				_		Hydric Soil Pres	sent? Yes X No
HYDROLO Wetland Hyd	GY drology Indicators	s:						
Wetland Hy	drology Indicators		uired; check all tl	hat apply)			Secondary Indicators (2 or more required)
Wetland Hy			juired; check all ti	hat apply		ed Leaves (B9) (Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9)
Wetland Hyd Primary India	drology Indicators cators (minimum o	f one req	uired; check all ti	hat apply			Except MLRA	
Wetland Hyd Primary India X	drology Indicators cators (minimum o Surface Water (A1)	f one req	uired; check all tl	hat apply	Water stain	d 4B)	Except MLRA	Water stained Leaves (B9)
Wetland Hyd Primary India X X	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2	f one req	uired; check all ti	hat apply	Water stain 1, 2, 4A, an Salt Crust (I	d 4B)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Wetland Hye Primary India	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3)	f one req	uired; check all ti	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve	d 4B) 311)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	<u>f one req</u> 2) 32)	juired; check all ti	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	d 4B) 311) ertebrates (B13) ulfide Odor (C1) iizospheres along	g Living Roots (C3)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	<u>f one req</u> 2) 32)	uired; check all t	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized Rh	d 4B) 311) ertebrates (B13) ulfide Odor (C1)	g Living Roots (C3)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	f one req ?) 32) 4)	uired; check all ti	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo	g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	f one req 2) 32) 4) B6)		hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo Stressed Plants (g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on	f one req 2) 32) 4) B6) Aerial Ima	ıgery (B7)	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo	g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C	f one req 2) 32) 4) B6) Aerial Ima	ıgery (B7)	hat apply	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo Stressed Plants (g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations:	f one req 2) 32) 4) B6) Aerial Ima	ıgery (B7) urface (B8)		Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S Other (Expla	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo Stressed Plants (g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hye	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes	f one req 2) 32) 4) B6) Aerial Ima Concave Si	ıgery (B7)	Depth	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S Other (Explain (inches):	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo Stressed Plants (g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hyde Primary India X X X Field Obser Surface Water	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes	f one req 2) 32) 4) B6) Aerial Ima	igery (B7) urface (B8) No <u>X</u>	Depth	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S Other (Expla	d 4B) 311) ertebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo Stressed Plants (ain in Remarks)	g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hye Primary India X X X Field Obser Surface Water Water Table P Saturation Pre: (includes capillar	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes	f one req 2) 32) 4) B6) Aerial Ima Concave So Concave So X	ngery (B7) urface (B8) No <u>X</u> No <u>No</u>	Depth Depth Depth	Water stain 1, 2, 4A, an Salt Crust (I Aquatic Inve Hydrogen S Oxidized RH Presence of Recent Iron Stunted or S Other (Explain (inches): (inches):	d 4B) 311) ertebrates (B13) ulfide Odor (C1) iizospheres along Reduced Iron (C Reduction in Plo Stressed Plants (ain in Remarks) 7 4	g Living Roots (C3) 24) wed Soils (C6) D1) (LRR A) Wetland Hyd	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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roject/Site:	Palmber	g Proper	ty	City/County:	Gea	arhart/Clatsop	Sampling D	ate:	3/28/2018
	Bill Palmb	erq	-			State:	OR	Sampling Po	oint: 4
vestigator(s):		JT/CM/C	R	Section, To	wnship, Range:	Section	10, Townshi	p 6N, Range 10	w
andform (hillslope			Slope/Ber	-			Convex		
ubregion (LRR):		LRR A		Lat:	46.02	28 Long:	46.0274		um: -123.909
oil Map Unit Nam	ie:		Warrenton L	- oamy Fine Sa	nd		ssification:	Non	e
re climatic/hydrolo					Yes			explain in Remark	
re vegetation	0	-		significantly dist	urbed?	Are "Normal Circumstanc	es" present? (Y	'N) Y	,
re vegetation		_	drology			l, explain any answers in Rer			
· -		_ ,				, 1 ,	,		
UMMARY O	F FINDINGS	 Attac 	h site map	showing sar	npling point	locations, transects	, important	features, etc.	
/drophytic Vegeta	ation Present?	Yes	X No		Is Sampled A	rea within			
ydric Soil Present	t?	Yes	No	Х	a Wetla			No X	
etland Hydrology	/ Present?	Yes	No	Х					
emarks:									
ample point is	s approximate	ely 3 feet	higher in ele	vation than ad	ljoining SP-3.				
EGETATION	I - Use scien	tific nan			la dia atau				
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test worl	ksneet:		
ee Stratum (p	lot size:	30)		<u> </u>		Number of Dominant Spec	cies		
Alnus rubra			40	Х	FAC	That are OBL, FACW, or F	AC:	5	(A)
						Total Number of Dominan	t		
·						Species Across All Strata:		5	(B)
			40	= Total Cover					
apling/Shrub Stra	atum (plot size	e: 15)			Percent of Dominant Spec	ies		
Alnus rubra	1		25	Х	FAC	That are OBL, FACW, or	FAC:	100%	(A/B)
Rubus arme	eniacus		5	<u> </u>	FAC				
} 						Prevalence Index Wo			
 5						Total % Cover of OBL Species		bly by: 1 = 0	
			30	= Total Cover		FACW species		1 = 0	
						FAC Species		3 = 0	
erb Stratum (p	lot size:	5)				FACU Species	>	4 = 0	
Phalaris aru	ındinacea		10	X	FACW	UPL Species	>	5 = 0	
Unidentified	-		10	Χ	(FAC)	Column Totals	0 (A)	0	(B)
3 Hedera helix	x		2		FACU				
						Prevalence Index =E	3/A =	#DIV/0!	
·						Hydrophytic Vegetati	on Indicators		
								 Hydrophytic Veget 	tation
							2- Dominance Te		
1			22	= Total Cover			3-Prevalence Ind	ex is ≤ 3.0 ¹	
							4-Morphological	Adaptations ¹ (provi	ide supporting
)					or on a separate s	heet)
	<u>ım</u> (plot size:						5- Wetland Non-		1
oody Vine Stratu	<u>ım</u> (plot size:							ophytic Vogotation	(Evolain)
oody Vine Stratu	ım (plot size:						Problematic Hydi		
/oody Vine Stratu	ı <u>m</u> (plot size:		0	= Total Cover		¹ Indicators of hydric soil ar			
3 /oody Vine Stratu 1 2	ı <u>m</u> (plot size:		0	= Total Cover					

Index to the sight needed to Souther the indicator or confirm the absence of indicators.) Image: the sight needed to Souther Sou	SOIL			PHS #	6338			Sampling Poi	nt: <u>4</u>
Openency Outer (mean) % Type Learny Sand 0-12 10YR 3/1 100			-	needed to docume			nce of indicators.)		
0-12 100 kt 3/1 100						1		_	
Type: C-Consentration, Dr-Depletion, RM-Reduced Matrix, CS-Covered or Costed Sand Grains. *Locator: PL-Pare Lining, MrMatrix. Type: C-Consentration, Dr-Depletion, RM-Reduced Matrix, CS-Covered or Costed Sand Grains. *Locator: PL-Pare Lining, MrMatrix. Type: C-Consentration, Dr-Depletion, RM-Reduced Matrix, CS-Covered or Costed Sand Grains. *Locator: PL-Pare Lining, MrMatrix. Yufric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils? Heids: Epison (A2) Black Heis: (A3) Loany Macky Minoral (F1) except MLRA 1) Very Shallow Dark Surface (TF 12) Depleted Bark Surface (T5) Depleted Bark Surface (T6) Traik Costs Surface (T7) *Indicators of hydrophytic vogotation and vetlend hydrology must be present, unless disturbed or problematic. Standy Matrix (S1) Depleted Dark Surface (T7) *Indicators of hydrophytic vogotation and vetlend hydrology indicators: timeser: indicators (nithmum of one required; check all that apply) Socardary Indicators (2 or more required) Surface Water (A1) Water stained Lawes (B) (Except MLRA (MI) Water stained Lawes (B) (MCRA12, A, and 4G) Surface Water (A2) Surface (T1) Water stained Lawes (B) (MCRA12, A, and 4G) Water stained Lawes (B) (MCRA12, A, and 4G) Surface Water (A2) Surface (G11) Dariange Paters (G1) Surface (G1) Surface (G1)	. /			Color (moist)	<u>%</u> Type			Rei	narks
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Interfrictive Layer (if present): http://www.iter.com/it)	hydrology must be prese	ent, unless disturbed or
ypp::		Sandy Gleyed Matri	x (S4)		Redox D	Depressions (F8)	T	proble	natic.
Hydric Soil Present? Yes NoX emarks: teccs of broken asphalt in sample. Refusal at 12" due to roots. WDROLOGY Vestand Hydrology Indicators: trimary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) High Water Table (A2) 1, 2, 4A, and 4B) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (A2) Gediment Deposits (B2) Hydrogen Suffice Odor (C1) Saturation Visible on Aerial Imagery (I Orift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Agal Mat or Crus (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) No _ X _ Depth (inches): >12<	Restrictive I	Layer (if present):						
emarks:: iscess of broken asphalt in sample. Refusal at 12" due to roots. IVDROLOGY Vetland Hydrology Indicators: trijmary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA High Water Table (A2) Water stained Leaves (B9) (Except MLRA (MLRA1, 2 4A, and 4B) Saturation (A3) Sati Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Suffice Odor (C1) Saturation Visible on Aerial Imagery (D2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crus (B4) Presence of Reduced Iron (C4) Shallow Aquitad (D3) Surface Soil Cracks (B6) Sturted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Vetare Marks) Frost-Heave Hummooks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 Vater Table Present? No X Depth (inches): >12 Vater Table Present? No X Depth (inches): >12 Yes No <td>уре:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	уре:								
titeces of broken asphalt in sample. Refusal at 12" due to roots. VDROLOGY Veltand Hydrology Indicators: trimary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) Water stained Leaves (B9) Saturation (A3) Sait Crust (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation (A3) Saturation Visible on Acrial Imagery (Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Agal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Solis (C6) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Wettand Hydrology Present? Yes No X Depth (inches): >12 Yes No X attrace Water Present? Y	Depth (inches	;):					Hydric Soil Pres	sent? Yes	<u>No X</u>
Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (I Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 Ield Observations: Ves No X urface Water Present? Yes No X No X Depth (inches): >12 Yes No X vectures capillary fringe) Yes No X Depth (inches): >12 Yes No X escribe			ors:						
High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) Saturation (A3) Satt Crust (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 iteld Observations: Ves No X urface Water Present? Yes No X No X Depth (inches): >12 Yes No X vectures capillary fringe) No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X	Primary Indic	cators (minimum	of one rec	uired; check all t	hat apply)			Secondary Indicators	(2 or more required
Inight Water Table (Ac) Salt Crust (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D2) Orift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 Vater Table Present? Yes No X Vater Table Present? Yes No X No X Depth (inches): >12 Yes No X values capillary fringe) No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes		Surface Water (A1)				. ,	(Except MLRA		
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (I Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 Yes No X Vater Table Present? Yes No X Depth (inches): >12 Yes No X Autorion Present? Yes No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X		High Water Table (A	42)		1, 2, 4A	, and 4B)		(MLRA1, 2	, 4A, and 4B)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 Vater Table Present? Yes No X Indudes capillary fringe) No X Depth (inches): escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X		Saturation (A3)						Drainage P	atterns (B10)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 ield Observations: Ves No X //ater Table Present? Yes No X No X Depth (inches): >12 //ater Table Present? Yes No X No X Depth (inches): >12 //ater Table Present? Yes No X loudes capillary fringe) Depth (inches): >12 Yes No escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X		Water Marks (B1)			Aquatic	Invertebrates (B13))	Dry-Seasor	ı Water Table (C2)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >12 ield Observations: Ves No X vater Table Present? Yes No X No X Depth (inches): >12 Vetland Hydrology Present? Yes No X neturation Present? Yes No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:		-	(B2)				-		_
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Vegetated Concave Surface (B8) Vegetated Concave Surface (B8) ield Observations: Ves No X Depth (inches): //ater Table Present? Yes No X Depth (inches): //ater Table Present? Yes No X Depth (inches): >12 veltand Hydrology Present? Yes No X Depth (inches): >12 veltand Lydrology Present? Yes No X Depth (inches): >12 veltand Lydrology Present? Yes No X Depth (inches): >12 veltand Exercise Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X						·	5 5 X ,		. ,
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Includes capillary fringe) No X Depth (inches): Plants			34)				. ,		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) ield Observations: Image: Concave Surface (B8) ield Observations: Ves No X urface Water Present? Yes No X //ater Table Present? Yes No X Indudes capillary fringe) No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:							. ,		
Sparsely Vegetated Concave Surface (B8) ield Observations: urface Water Present? Yes No X Depth (inches): >12 //ater Table Present? Yes No X Depth (inches): >12 //ater Table Present? Yes No X Depth (inches): >12 //ater Table Present? Yes No X Depth (inches): >12 aturation Present? Yes No X Depth (inches): >12 includes capillary fringe) Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				· · · · · · (D7)					
ield Observations: urface Water Present? Yes No X Depth (inches): >12 Wetland Hydrology Present? /ater Table Present? Yes No X Depth (inches): >12 Wetland Hydrology Present? aturation Present? Yes No X Depth (inches): >12 Yes No X noludes capillary fringe) No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:						xpiain in Remarks)		Frost-Heav	3 HUMMOCKS (D7)
urface Water Present? Yes No X Depth (inches): >12 /ater Table Present? Yes No X Depth (inches): >12 Wetland Hydrology Present? aturation Present? Yes No X Depth (inches): >12 Yes No X oludes capillary fringe) Yes No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available: If available:			-	(-)			1		
Vater Table Present? Yes No X Depth (inches): >12 Wetland Hydrology Present? aturation Present? Yes No X Depth (inches): >12 Yes No X ncludes capillary fringe) No X Depth (inches): >12 Yes No X escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available:				No X	Depth (inches)	:			
aturation Present? Yes No X Depth (inches): >12 Yes No X Includes capillary fringe) escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							Wetland Hvd	Irology Present?	
escribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									No X
	Describe Reco	rded Data (stream o	auge, mon	itoring well, aerial pl	notos, previous insp	ections), if available	e:		
marks:	Describe Reco	rded Data (stream g	gauge, mon	itoring well, aerial pl	notos, previous insp	ections), if availabl	e:		
marks:									
	marka								
	emarks:								

WETLAND DETE	RMINATIO		RM - Weste	rn Mountains. Va	allevs, and (рнз Coast Regio	
roject/Site: Palmberg Prope		City/County:		rhart/Clatsop	Sampling	•	3/28/2018
oplicant/Owner: Bill Palmberg				State	OR	Sampling F	Point: 5
vestigator(s): SE/JT/CM/	CR	Section, To	wnship, Range:	Sectio	on 10, Townsh	nip 6N, Range 1	ow
andform (hillslope, terrace, etc.:)		-	Local relief (cor	ncave, convex, none):		Slope	(%):
ubregion (LRR):	A	Lat:	46.020	67 Long	-123.90		atum: WGS84
bil Map Unit Name:		_ .oamy Fine Sa			lassification:		
e climatic/hydrologic conditions on the site		-	Yes			o, explain in Rema	
, ,		significantly dist		Are "Normal Circumsta	·		
	lydrology			, explain any answers in R		·///	
·		_			·		
JMMARY OF FINDINGS – Atta drophytic Vegetation Present? Yes			npling point	locations, transec	ts, important	t features, etc	•
	X No X No		Is Sampled Ar		v	Ne	
			a Wetlar	nd? Yes	s <u>X</u>	No	
etland Hydrology Present? Yes	X No						
emarks:							
EGETATION - Use scientific na	mes of plant	ts.					
	absolute	Dominant	Indicator	Dominance Test wo	orksheet:		
	% cover	Species?	Status				
ee Stratum (plot size:)			Number of Dominant Sp			
				That are OBL, FACW, o	r FAC:	4	(A)
				Total Number of Domina		_	
				Species Across All Strat	a:	5	(B)
	0	= Total Cover					
pling/Shrub Stratum (plot size: 15	/			Percent of Dominant Sp	ecies		
Spiraea douglasii	20	<u> </u>	FACW	That are OBL, FACW, o	or FAC:	80%	(A/B)
Schedonorus arundinaceus	5	<u> </u>	FAC				
				Prevalence Index W			
				Total % Cover of	Mul	tiply by:	
	25	= Total Cover		OBL Species FACW species		x 1 = 0 x 2 = 0	
				FAC Species		$x^{2} = 0$ $x^{3} = 0$	
rb Stratum (plot size: 5)			FACU Species		x 4 = 0	
Phalaris arundinacea	60	х	FACW	UPL Species		x 5 = 0	
Juncus effusus	40	X	FACW	Column Totals	0 (A)	0	(B)
Hypochaeris radicata	5		FACU				
				Prevalence Index	=B/A =	#DIV/0!	
				Hydrophytic Vegeta			
					_	or Hydrophytic Veg	etation
	405	- T-1 - 0		<u> </u>	2- Dominance		
	105	= Total Cover			3-Prevalence Ir 4-Morphologica	ldex is ≤ 3.0° I Adaptations ¹ (pro	vide supportina
body Vine Stratum (plot size: 15)				_	s or on a separate	
Rubus ursinus	´ 5	x	FACU			-Vascular Plants ¹	
					Problematic Hy	drophytic Vegetatio	on ¹ (Explain)
				¹ Indicators of hydric soil	_		
	5	= Total Cover		indicators of fiyano soli	and wettand nyu		,
	5	= Total Cover		disturbed or problematic	-		,
Bare Ground in Herb Stratum	<u> </u>	= Total Cover			-	X	No

SOIL			PHS #	63	338	_		Sampling Point: 5
	iption: (Describe to	the depth	needed to docume			onfirm the absen	ce of indicators.)	
Depth (Inchoo)	Matrix	%	Color (moint)	Redo %	x Features Type ¹	Loc ²	Texture	Remarks
(Inches)	Color (moist)		Color (moist)					
0-16	10YR 2/2	85	7.5YR 2.5/2	25	C	<u>M</u>	Sandy Loam	Cobble 10%
								·
¹ Type: C=Con	centration, D=Depleti	ion, RM=R	educed Matrix, CS=	Covered o	r Coated Sa	ind Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherw	ise noted	.)	Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)				Sandy Rec	lox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped M	atrix (S6)		Red Parent Material (TF2)
	Black Histic (A3)				Loamy Mu	cky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4)			Loamy Gle	yed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	surface (A11)		Depleted N	1atrix (F3)		
	Thick Dark Surface (A12)	·	х	Redox Dar	k Surface (F6)		
	Sandy Mucky Minera	-				ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix					pressions (F8)		hydrology must be present, unless disturbed or problematic.
Restrictive	Layer (if present)	:						
Туре:					_			
Depth (inche	s):						Hydric Soil Pres	sent? Yes X No
Remarks:					_			
HYDROLC	OGY							
-	drology Indicator							
Primary Indi	cators (minimum o	of one rec	uired; check all th					Secondary Indicators (2 or more required)
	Surface Water (A1) High Water Table (A	2)			Water stair 1, 2, 4A, a	ned Leaves (B9) (nd 4B)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
	Saturation (A3)	,			Salt Crust	(B11)		Drainage Patterns (B10)
	Water Marks (B1)				•	vertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (I	B2)				Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9
	Drift Deposits (B3)	,					g Living Roots (C3)	X Geomorphic Position (D2)
	Algal Mat or Crust (B	4)			•	of Reduced Iron (C		Shallow Aquitard (D3)
	Iron Deposits (B5)	,				n Reduction in Plo	,	X Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)				Stressed Plants (. ,	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible on		igery (B7)			lain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated					,		
Field Obser	vations:							
Surface Wate	Present? Yes		No X	Depth	(inches):			
Water Table F	Present? Yes		No X	Depth	(inches):	>16	Wetland Hyd	Irology Present?
Saturation Pre (includes capilla			No X	Depth	(inches):	>16		Yes X No
Describe Reco	orded Data (stream g	auge, mon	itoring well, aerial ph	iotos, prev	ious inspec	tions), if available:		
Remarks:								

,					RM . Weete	rn Mountains	s Valla	ve and	Coast	PHS #	6338	
Project/Site:		rg Proper		City/County:		rhart/Clatsop	, vane			-	3/2018	
	blicant/Owner: Bill Palmberg		<u> </u>	Oity/Obunty.			State: OR			1 5		
Investigator(s):	_		Section To	wnship, Range:					Range 10W			
Landform (hillslope,			Berm	-	17 0	ncave, convex, none		0, 10	Ship on, i	-		
	, lenace, elc)	LRR A	-	l at:	46.026		·	-123.9	0087	Slope (%):	WGS84	
Subregion (LRR):				Lat:			Long:			Datum:	WG304	
Soil Map Unit Name				oamy Fine Sa			WI Classi	_		None		
Are climatic/hydrolo	•				Yes	<u>X</u>	No		<i>,</i> ,	in Remarks)		
Are vegetation				significantly dist		Are "Normal Circu			(Y/N)	<u> </u>		
Are vegetation	Soil	or Hyd	drology	naturally problem	matic? If needed	, explain any answer	rs in Rema	ırks.)				
		– Attac	h site map s	showing san	nplina point	locations, tran	isects. i	importa	nt featur	es. etc.		
lydrophytic Vegeta		Yes	No	X		,,						
lydric Soil Present		Yes	No	<u> </u>	Is Sampled Ar		Ves		No	x		
Vetland Hydrology		Yes —	No	<u> </u>	a Wetlar	10?	103					
	Fiesent	103										
Remarks:												
/EGETATION	- Use scien	tific nan	nes of plant	S.								
			absolute	Dominant	Indicator	Dominance Te	st works	heet:				
			% cover	Species?	Status							
ree Stratum (pl	ot size:)				Number of Domina	ant Specie	S				
1						That are OBL, FA	CW, or FA	C: _		2	(A)	
2												
3						Total Number of D					-	
4						Species Across Al	l Strata:	_		4	(B)	
			0	= Total Cover								
apling/Shrub Strat	tum (plot size	e: 15)			Percent of Domina	ant Specie	S				
Rubus arme	niacus		20	Х	FAC	That are OBL, FAC	CW, or FA	•C:	50	0%	(A/B)	
2 Rubus lacini	iatus		5	X	FACU							
3						Prevalence Ind	ex Work					
4						Total % Cover of			lultiply by:			
5						OBL Species		5	x 1 =	5		
			25	= Total Cover		FACW species FAC Species		5 60	x 2 = x 3 =	<u> </u>	,	
lerb Stratum (pl	ot size:	5)				FACU Species		55	x 3 – x 4 =	220		
1 Plantago lan			35	x	FACU	UPL Species			x 5 =	0		
2 Unidentified			30	X	(FAC)	Column Tota		125 (/	A)		(B)	
3 Hypochaeris	s radicata		15		FACU			`				
4 Juncus effus			5		FACW	Prevalence I	index =B/A	λ =	3.	32		
5 Carex obnup	ota		5		OBL							
6 Lotus cornic	culatus		5		FAC	Hydrophytic Ve	egetation	1 Indicat	ors:			
7 Vicia sp.			5		(FAC)		1-1	Rapid Tes	t for Hydropl	hytic Vegetatio	n	
3							2-	Dominanc	e Test is >50)%		
			100	= Total Cover					Index is ≤ 3			
/ I \# =:	/ml-4 . '		\ \							ons ¹ (provide s		
/oody Vine Stratur	m (plot size:		_)							separate sheel	()	
່ າ									on-Vasculai		volain)	
۲				- Total O		¹ Indicators of hude				Vegetation ¹ (E		
			0	= Total Cover		¹ Indicators of hydri disturbed or proble		weuana n	yarology mu	si pe present,	u111855	
						Hydrophytic						
A Baro Ground in L	Herb Stratum		0			Vegetation		Yes		No	Х	
[®] Bare Ground In 1						Present?				-		

SOIL			PHS #	6338				Sampling Point:	6
-	ption: (Describe to t	the depth r	needed to docume			firm the absend	ce of indicators.)		
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	Redox Fe %	eatures Type ¹	Loc ²	Toyturo	Remarks	
(Inches)	Color (moist)		Color (moist)	70	Туре	LUU	Texture		
0-10	10YR 2/2	100					Loamy Sand	Fine	
10-13	10YR 2/2	99	7.5YR 3/4		С	M	Loamy Sand	Fine	
	·				·			·	
								,	
					·				
					·			·	
Type: C=Conc	centration, D=Depletic	on, RM=Re	educed Matrix, CS=	Covered or Co	ated Sand	I Grains.		² Location: PL=Pore Lining, M=N	latrix.
lydric Soil I	Indicators: (Appli	cable to	all LRRs, unless	s otherwise	noted.)		Indic	ators for Problematic Hydric	c Soils ³ :
I	Histosol (A1)			Sar	ndy Redox	: (S5)		2 cm Muck (A10)	
H	Histic Epipedon (A2)			Stri	ipped Matr	ix (S6)		Red Parent Materia	al (TF2)
I	Black Histic (A3)			Loa	amy Mucky	/ Mineral (F1) (e	except MLRA 1)	Very Shallow Dark	Surface (TF12)
	Hydrogen Sulfide (A4)	.)		Loa	amy Gleye	d Matrix (F2)		Other (explain in R	emarks)
[Depleted Below Dark	Surface (4	\11)	Dep	pleted Mat	rix (F3)			
-	Thick Dark Surface (A	A12)		Rec	dox Dark S	Surface (F6)			
;	Sandy Mucky Mineral	l (S1)		Dep	pleted Dar	k Surface (F7)		³ Indicators of hydrophytic vegeta	
	Sandy Gleyed Matrix					ssions (F8)		hydrology must be present, unle problematic.	SS disturded or
lestrictive l	Layer (if present):	:							
Гуре:							1		
Гуре: Depth (inches Remarks:	:):						Hydric Soil Pres	sent? Yes I	No <u>X</u>
Depth (inches Remarks:		 s:					Hydric Soil Pre	sent? Yes I	No <u>X</u>
Depth (inches Remarks: HYDROLO Wetland Hyd	GY		uired; check all th	nat apply)			Hydric Soil Pre	sent? Yes N	
Depth (inches Remarks: HYDROLO Wetland Hyd Primary Indic	GY drology Indicators		uired; check all th			d Leaves (B9) (I		Secondary Indicators (2 or Water stained Leav	more required) ves (B9)
Pepth (inches Remarks: HYDROLO Vetland Hyd Primary Indic	GY drology Indicators cators (minimum of	of one req	uired; check all th	Wa	ater stained	d Leaves (B9) (I		Secondary Indicators (2 or	more required) ves (B9)
HYDROLO Remarks: HYDROLO Wetland Hyd Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1)	of one req	uired; check all th	Wa 1, 2		d Leaves (B9) (I 4B)		Secondary Indicators (2 or Water stained Leav	more required) ves (B9) nd 4B)
HYDROLO Netland Hyd Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2	of one req	uired; check all th	Wa 1, 2 Salt	2, 4A, and It Crust (B1	d Leaves (B9) (I 4B)		Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar	more required) ves (B9) nd 4B) (B10)
Argenth (inches Remarks: HYDROLO Wetland Hyd Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3)	of one req 2)	uired; check all th	Wa 1, 2 Salt	2, 4A, and It Crust (B1 uatic Invert	d Leaves (B9) (I 4B) 11)		Secondary Indicators (2 or Water stained Lear (MLRA1, 2, 4A, ar Drainage Patterns	more required) ves (B9) nd 4B) (B10) [.] Table (C2)
HYDROLO Netland Hyc Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	of one req 2)	uired; check all th	Wa 1, 2 Salt Aqu Hyc	2, 4A, and It Crust (B1 uatic Invert drogen Sul	d Leaves (B9) (I 4B) 11) tebrates (B13) Ifide Odor (C1)		Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water	more required) ves (B9) nd 4B) (B10) • Table (C2) on Aerial Imagery
HYDROLO Netland Hyd Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	of one req 2) 32)	uired; check all th	Wa 1, 2 Salt Aqu Hyc Oxio	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz	d Leaves (B9) (I 4B) 11) tebrates (B13) Ifide Odor (C1)	Except MLRA	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2)
Arrimary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	of one req 2) 32)	uired; check all th	Wa 1, 2 Sali Aqu Hyc Oxia Pre	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F	d Leaves (B9) (I 4B) 11) tebrates (B13) Ifide Odor (C1) zospheres along	Except MLRA g Living Roots (C3)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi	more required) ves (B9) nd 4B) (B10) [.] Table (C2) on Aerial Imagery on (D2) D3)
Arimary Indices	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4	of one req 2) 32) 4)	uired; check all th	Wa 1, 2 Salt Aqu Hyc Oxia Pre Rec	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R	d Leaves (B9) (I 4B) 11) tebrates (B13) Ifide Odor (C1) zospheres along Reduced Iron (C	Except MLRA g Living Roots (C3) 24) wed Soils (C6)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, at Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I	more required) ves (B9) nd 4B) (B10) • Table (C2) on Aerial Imagery on (D2) D3)
Arrinary Indices	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B1) Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	of one req 2) 32) 4) (B6)		Wa 1, 2 Salt Aqu Hyc Oxio Pre Reco Stu	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str	d Leaves (B9) (I 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) 24) wed Soils (C6)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A)
Primary Indic	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I	of one req 2) 32) 4) Aerial Ima	gery (B7)	Wa 1, 2 Salt Aqu Hyc Oxio Pre Reco Stu	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str	d Leaves (B9) (I 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I	Except MLRA g Living Roots (C3) 24) wed Soils (C6)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A)
Pepth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations:	of one req 2) 32) 4) Aerial Ima	gery (B7) urface (B8)	Wa 1, 2 Salt Aqu Hyc Oxio Pre Reco Stu	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str	d Leaves (B9) (I 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I	Except MLRA g Living Roots (C3) 24) wed Soils (C6)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A)
Arimary Indices	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations:	of one req 2) 32) 4) Aerial Ima	gery (B7) urface (B8) No <u>X</u>	Wa 1, 2 Salt Aqu Hyc Oxio Pre Reco Stu	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str ner (Explain	d Leaves (B9) (I 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I n in Remarks)	Except MLRA g Living Roots (C3) 24) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mounda Frost-Heave Humn	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A)
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Argentian (inches) Remarks: Argentarks: Argentaria (Argentaria) Argentaria (Ar	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes	of one req 2) 32) 4) Aerial Ima	gery (B7) urface (B8) No <u>X</u>	Wa 1, 2 Salt Aqu Hyc Oxia Pre Rec Stu Oth Depth (inc	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str her (Explain ches):	d Leaves (B9) (I 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I n in Remarks)	Except MLRA g Living Roots (C3) 24) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A)
Primary India	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes	of one req 2) 32) 4) Aerial Ima Concave Su	gery (B7) urface (B8) No X No X No X	Wa 1, 2 Salt Aqu Hyc Oxic Pre Rec Stu Oth Depth (inc Depth (inc Depth (inc	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str her (Explain ches): ches):	d Leaves (B9) (I 4B) 11) tebrates (B13) tide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I n in Remarks) >13 >13	Except MLRA g Living Roots (C3) (4) wed Soils (C6) D1) (LRR A) Wetland Hyc	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mounds Frost-Heave Humm	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A) nocks (D7)
Primary India	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes sent? Yes sent? Yes y fringe)	of one req 2) 32) 4) Aerial Ima Concave Su	gery (B7) urface (B8) No X No X No X	Wa 1, 2 Salt Aqu Hyc Oxic Pre Rec Stu Oth Depth (inc Depth (inc Depth (inc	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str her (Explain ches): ches):	d Leaves (B9) (I 4B) 11) tebrates (B13) tide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I n in Remarks) >13 >13	Except MLRA g Living Roots (C3) (4) wed Soils (C6) D1) (LRR A) Wetland Hyc	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mounds Frost-Heave Humm	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A) nocks (D7)
Primary India	GY drology Indicators cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes sent? Yes sent? Yes y fringe)	of one req 2) 32) 4) Aerial Ima Concave Su	gery (B7) urface (B8) No X No X No X	Wa 1, 2 Salt Aqu Hyc Oxic Pre Rec Stu Oth Depth (inc Depth (inc Depth (inc	2, 4A, and It Crust (B1 uatic Invert drogen Sul idized Rhiz esence of F cent Iron R unted or Str her (Explain ches): ches):	d Leaves (B9) (I 4B) 11) tebrates (B13) tide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo ressed Plants (I n in Remarks) >13 >13	Except MLRA g Living Roots (C3) (4) wed Soils (C6) D1) (LRR A) Wetland Hyc	Secondary Indicators (2 or Water stained Leav (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positio Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mounds Frost-Heave Humm	more required) ves (B9) nd 4B) (B10) Table (C2) on Aerial Imagery on (D2) D3) D5) s (D6) (LRR A) nocks (D7)

Subregion (LRR): LRR A Lat: 46.0256 Long: 123.9089 Dr. Soil Map Unit Name: Warrenton Loamy Fine Sand NWI Classification: No 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? (Y/N) Y 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 X No Hydrophytic Vegetation Present? Yes X No Hydrophytic Vegetation Present? Yes X No Remarks: Is Sampled Area within a Wetland? Yes X No VEGETATION - Use scientific names of plants. Dominant Indicator Sumber of Dominant Species 1	3/28/2018 Point: 7 0W (%): 41000 atum: WGS84 ne 10000 nrks)
Applicant/Owner: Bill Palmberg State: OR Sampling 1 Investigator(s): SE/JT/CM/CR Section, Township, Range: Section 10, Township 6N, Range 1 Landform (hillstope, terrace, etc.:)	Point: 7 0W
Investigator(s): SE/JT/CM/CR Section, Township, Range: Section 10, Township 6N, Range 1 Landform (hillstope, terrace, etc.:)	0W (%): wGS84 ne irks)
Landform (hillslope, terrace, etc.:) Local relief (concave, convex, none): Slope Subregion (LRR): LRR A Lat: 46.0256 Long: 123.9089 Di Soil Map Unit Name: Warrenton Loamy Fine Sand NWI Classification: No 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? (Y/N) Y Are vegetation Soil or Hydrology inaturally 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 X No Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Dominant Indicator Yees X No Indicator Status Number of Dominant Species? Status Number of Dominant Species 1	r (%): atum: WGS84 ne ırks)
Subregion (LRR): LRR A Lat: 46.0256 Long: 123.9089 Dr. Soil Map Unit Name: Warrenton Loamy Fine Sand NVII Classification: No 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? (Y/N) Y 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 X No Hydrophytic Vegetation Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Dominant Indicator Yees X No Indicator 1	atum: WGS84 ne ırks)
Soil Map Unit Name: Warrenton Loamy Fine Sand NWI Classification: No Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No (if no, explain in Remather Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (V/N) Y 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, etco Hydrophytic Vegetation Present? Yes X No	ne ırks)
Are climatic/hydrologic conditions on the site typical for this time of year? Yes X No	ırks)
Are vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? (Y/N) Y 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 X No Hydrology Present? Yes X No Is Sampled Area within a Wetland? Yes X No Remarks: VEGETATION - Use scientific names of plants. Indicator Dominant Indicator Number of Dominant Species 1	
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 X No Is Sampled Area within a Wetland? Yes X No Hydric Soil Present? Yes X No Is Sampled Area within a Wetland? Yes X No Wetland Hydrology Present? Yes X No Is Sampled Area within a Wetland? Yes X No Remarks: VEGETATION - Use scientific names of plants. Indicator Dominant Mumber of Dominant Species 1	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc Hydrophytic Vegetation Present? Yes X No Is Sampled Area within a Wetland? Yes X No Hydric Soil Present? Yes X No Is Sampled Area within a Wetland? Yes X No Wetland Hydrology Present? Yes X No Is Sampled Area within a Wetland? Yes X No Remarks: VEGETATION - Use scientific names of plants. Dominant Indicator Dominance Test worksheet: No Tree Stratum (plot size:) 1 Indicator Number of Dominant Species Nat are OBL, FACW, or FAC: 3 1	
Hydrophytic Vegetation Present? Yes X No Is Sampled Area within a Wetland? Yes X No Hydric Soil Present? Yes X No a Wetland? Yes X No Wetland Hydrology Present? Yes X No a Wetland? Yes X No Remarks: Yes X No Indicator Dominance Test worksheet: No YEGETATION - Use scientific names of plants. Dominant Indicator Status Number of Dominant Species Tree Stratum (plot size:) 1	
Hydric Soil Present? Yes X No Is Sampled Area within a Wetland? Yes X No Wetland Hydrology Present? Yes X No Indicator Yes X No Remarks:	
Hydric Soil Present? Yes X No a Wetland? Yes X No Wetland Hydrology Present? Yes X No Image: Comparison of the system of t	
Remarks: VEGETATION - Use scientific names of plants. Image: stratum of plants in the stratum of plant in the stratumon of plant in the stratumon of plant in the stratumon	
VEGETATION - Use scientific names of plants. absolute Dominant Indicator Dominance Test worksheet: <u>% cover</u> Species? Status Number of Dominant Species 1	
absolute Dominant Indicator Tree Stratum (plot size:))	
absolute Dominant Indicator Tree Stratum (plot size:))	
absolute Dominant Indicator Tree Stratum (plot size:))	
% cover Species? Status 1	
1 That are OBL, FACW, or FAC: 3 2 Total Number of Dominant 3 Total Number of Dominant 4 Species Across All Strata: 3 Percent of Dominant Species	
2	
3	(A)
4	
0 = Total Cover Sapling/Shrub Stratum (plot size:) Percent of Dominant Species	
Sapling/Shrub Stratum (plot size:) Percent of Dominant Species	(B)
1 That are OBL, FACW, or FAC:0	(A/B)
3 Prevalence Index Worksheet:	
4 Total % Cover of Multiply by: 5 OBL Species x 1 = 0	
0 = Total Cover FACW species x 2 = 0	
FAC Species x 3 = 0	
Herb Stratum (plot size: 5) FACU Species x 4 = 0	
1 Juncus effusus 45 X FACW UPL Species x 5 = 0	
2 Unidentified grass 25 X (FAC) Column Totals 0 0	(B)
3 <u>Holcus lanatus</u> 20 X FAC	
4 Lotus corniculatus 10 FAC Prevalence Index =B/A = #DIV/0!	
5	
7 1- Rapid Test for Hydrophytic Vegetation indicators.	etation
8 X 2- Dominance Test is >50%	station
100 = Total Cover 3 -Prevalence Index is $\leq 3.0^1$	
4-Morphological Adaptations ¹ (pro	vide supporting
Woody Vine Stratum (plot size:) data in Remarks or on a separate	sheet)
1 5- Wetland Non-Vascular Plants ¹	1
2 Problematic Hydrophytic Vegetatio	
0 = Total Cover ¹ Indicators of hydric soil and wetland hydrology must be pre disturbed or problematic.	sent, unless
Hydrophytic	
% Bare Ground in Herb Stratum Yes X	
Present?	No

SOIL			PHS #	633	38			Sampling Point: 7
Profile Descri	ption: (Describe to	the depth	needed to docume	nt the indic	ator or cor	nfirm the absen	ce of indicators.)	
Depth	Matrix		0.1		Features	Loc ²		5
(Inches)	Color (moist)	%	Color (moist)	%	Туре'	LOC	Texture	Remarks
0-8	10YR 3/3	100				<u> </u>	Sandy Loam	
8-15	7.5YR 2/2	90	7.5YR 3/4	10	<u>с</u>	M	Loamy Sand	Medium
	centration, D=Deplet							² Location: PL=Pore Lining, M=Matrix.
-	Indicators: (Appl	icable to	all LRRs, unles				Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)				Sandy Redo			2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma			Red Parent Material (TF2)
	Black Histic (A3)			l	oamy Mucl	ky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4)		l	oamy Gley	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	c Surface (A11)	[Depleted Ma	atrix (F3)		
	Thick Dark Surface (A12)				Surface (F6)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera	ıl (S1)			-	ark Surface (F7)		hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	: (S4)		F	Redox Depr	essions (F8)		problematic.
Restrictive	Layer (if present)	:						
Type:					-			
Depth (inches	s):				-		Hydric Soil Pres	sent? Yes X No
Remarks:								
Cobble up t	o 4 inches in siz	e are cor	nmon.					
HYDROLO								
wetland Hy	drology Indicator	rs:						
Primary Indi	cators (minimum o	of one rec	uired; check all t	11 3/				Secondary Indicators (2 or more required)
	Surface Water (A1)					ed Leaves (B9) (Except MLRA	Water stained Leaves (B9)
	High Water Table (A	2)			l, 2, 4A, and			(MLRA1, 2, 4A, and 4B)
	Saturation (A3)				Salt Crust (E			Drainage Patterns (B10)
	Water Marks (B1)				-	ertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)				ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	Drift Deposits (B3)	4)					g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B Iron Deposits (B5)	94)				Reduced Iron (owed Soils (C6)	Shallow Aquitard (D3) X Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)				Stressed Plants (X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
	Inundation Visible or	. ,	agery (B7)			ain in Remarks)	(= , (=	Frost-Heave Hummocks (D7)
	Sparsely Vegetated				saioi (Expie			
Field Obser			. ,				-	
Surface Water			No X	Dopth (inchoo);			
Water Table P		x	No X		inches): inches):	12	Wotland Hyr	Irology Present?
Saturation Pre		<u>x</u>	No		inches):	9	wettand hyc	Yes X No
(includes capilla			NO	Deptil(inches).	3		
Describe Reco	orded Data (stream g	auge, mon	itoring well, aerial pł	notos, previo	ous inspection	ons), if available	:	
Remarks:								

,	WETLAND		RMINATIO	N DATA FOI	RM - Weste	rn Mountains, Val	leys, and Coa	PHS # st Region	6338
Project/Site:		g Proper		City/County:		rhart/Clatsop	Sampling Date:	-	8/2018
pplicant/Owner: Bill Palmberg		-			State:	OR	Sampling Point:		
nvestigator(s):	· · · · · · · · · · · · · · · · · · ·		Section, To	wnship, Range:	Section	10, Township 6	N, Range 10W		
andform (hillslope,			Flats			ncave, convex, none):	Convex	Slope (%):	2
Subregion (LRR):	, , ,	LRR A		Lat:	46.025		-123.9089	Datum:	WGS84
Soil Map Unit Name	<u> </u>			- oamy Fine Saı			ssification:	None	
Are climatic/hydrolog				-	Yes	X No		plain in Remarks)	
Are vegetation				significantly dist		Are "Normal Circumstanc		· · ·	
re vegetation		_	drology			, explain any answers in Rei	,	<u> </u>	
							marks.)		
SUMMARY OF	FINDINGS	- Attac	h site map	showing san	pling point	locations, transects	, important fea	tures, etc.	
lydrophytic Vegetat	tion Present?	Yes	X No						
lydric Soil Present?	?	Yes	No	Х	Is Sampled Ar a Wetlar			No X	
Vetland Hydrology	Present?	Yes	No	Х					
emarks:									
EGETATION	- Use scien	tific nan	nes of plant						
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:		
ree Stratum (plo	ot size:)		opecies !	JIAIUS	Number of Dominant Spec	cies		
"		/				That are OBL, FACW, or I		3	(A)
2						- , - ,	-	-	()
3				·		Total Number of Dominan	t		
1						Species Across All Strata:		3	(B)
			0	= Total Cover					
apling/Shrub Strat	tum (plot size	e:)			Percent of Dominant Spec	cies		
1		1	_^			That are OBL, FACW, or	FAC:	100%	(A/B)
2									
3						Prevalence Index Wo	orksheet:		
1				. <u></u>		Total % Cover of	Multiply b	by:	
5						OBL Species	x 1 =	- 0	
			0	= Total Cover		FACW species	x 2 =		
erb Stratum (plo	ot size:	5)				FAC Species	x 3 = x 4 =		
1 Unidentified		<u> </u>	50	X	(FAC)	FACU Species	x 4 - x 5 =		
2 Juncus effus	-		20	<u> </u>	FACW	Column Totals	0 (A)		(B)
B Phalaris aru			20	X	FACW	-	(v)		(=)
4 Lotus cornic			10		FAC	Prevalence Index =E	3/A =	#DIV/0!	
5									1
6						Hydrophytic Vegetati	on Indicators:		
7						·	1- Rapid Test for Hyd	drophytic Vegetatio	n
3							2- Dominance Test is		
			100	= Total Cover			3-Prevalence Index i		upporting
oody Vine Stratun	m (plot size:)				4-Morphological Ada data in Remarks or c		
l	II (PIOL SIZE.		/				5- Wetland Non-Vas		-y
2							Problematic Hydroph		xplain)
			0	= Total Cover		¹ Indicators of hydric soil ar			
						disturbed or problematic.	, -9,	,	
						1			
6 Bare Ground in H	lash Cturati		0			Hydrophytic Vegetation	Yes X	No	

			PHS #	6338	3			Sampling Point: 8	
-	ption: (Describe to t	the depth	needed to docume			rm the absen	ce of indicators.)		
Depth	Matrix			Redox Fe		1 2	- .		
(Inches)	Color (moist)	%	Color (moist)	%	Туре¹	Loc ²	Texture	Remarks	
0-12	10YR 3/1	100					Loamy Sand		
12-18	10YR 3/1	99	7.5YR 5/8	1	с	М	Loamy Sand	Fine	
¹ Type: C=Conc	entration, D=Depletion	on, RM=Re	educed Matrix, CS=	Covered or Co	oated Sand (Grains.		² Location: PL=Pore Lining, M=Matrix.	
	ndicators: (Appli						Indic	ators for Problematic Hydric Soils ³ :	
ŀ	Histosol (A1)			Sa	indy Redox ((S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Str	ripped Matrix	k (S6)		Red Parent Material (TF2)	
	Black Histic (A3)				••	. ,	except MLRA 1)	Very Shallow Dark Surface (TF12	2)
	Hydrogen Sulfide (A4	1)			amy Gleyed		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Other (explain in Remarks)	-)
	, ,	,	A A A \						
	Depleted Below Dark	-	411)		epleted Matri				
	Thick Dark Surface (A	-			edox Dark Su			³ Indicators of hydrophytic vegetation and wetla	nd
	Sandy Mucky Mineral				-	Surface (F7)		hydrology must be present, unless disturbed of	
s	Sandy Gleyed Matrix	(S4)		Re	edox Depress	sions (F8)	-	problematic.	
Restrictive L	_ayer (if present):	:	_	_	_				-
Туре:									
Depth (inches)):						Hydric Soil Pres	sent? Yes NoX	_
Remarks:							-		
HYDROLO Wetland Hyd	GY drology Indicator	 'S:							
Wetland Hyd			uired; check all th	hat apply)				Secondary Indicators (2 or more require	:d)
Wetland Hyd Primary Indic	drology Indicator		uired; check all th	Wa			Except MLRA	Water stained Leaves (B9)	;d)
Wetland Hyd Primary Indic	drology Indicator	of one req	uired; check all th	Wa	ater stained 2, 4A, and 4		Except MLRA		;d)
Wetland Hyd Primary Indic s	drology Indicator cators (minimum o Surface Water (A1)	of one req	uired; check all th	Wa 1, 2		IB)	Except MLRA	Water stained Leaves (B9)	;d)
Wetland Hyd Primary Indic S H S	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2	of one req	uired; check all th	Wa 1, 2 Sal	2, 4A, and 4 Ilt Crust (B11	IB)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)	;d)
Wetland Hyd Primary Indic F F S V V S S	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (E	of one req 2)	uired; check all t	Wa 1, 2 Sal Aq	2, 4A, and 4 It Crust (B11 Juatic Inverte	IB) 1)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)	
Wetland Hyd Primary Indic F F S V V S S	drology Indicators cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	of one req 2)	uired; check all ti	Wa 1, 2 Sal Aqu Hyd	2, 4A, and 4 It Crust (B11 Juatic Inverte rdrogen Sulfi	IB) 1) ebrates (B13) ide Odor (C1)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)	
Wetland Hyd Primary Indic F S S S S S S S S S S S S S S S S S S	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (E	of one req 2) B2)	uired; check all ti		2, 4A, and 4 alt Crust (B11 juatic Inverte rdrogen Sulfi kidized Rhizo	IB) 1) ebrates (B13) ide Odor (C1)	g Living Roots (C3)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image	
Wetland Hyd Primary Indic F S S S S S S S S S S S S S S S S S S	drology Indicator cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3)	of one req 2) B2)	uired; check all tl		2, 4A, and 4 It Crust (B11 Juatic Inverter rdrogen Sulfi didized Rhizo esence of Re ecent Iron Re	IB) 1) bebrates (B13) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo	g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X	ery (C
Wetland Hyd Primary Indic F F S V S C A A In	cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4	of one req 2) B2) 4)	uired; check all t		2, 4A, and 4 It Crust (B11 Juatic Inverter rdrogen Sulfi didized Rhizo esence of Re ecent Iron Re	IB) 1) ebrates (B13) ide Odor (C1) ospheres alon educed Iron (C	g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A	ery (C
Wetland Hyd Primary Indic F S V S S C A A II S C A A S C A A S C A A S C A A S S C A A S S S S S S S S S S S S S	cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 ron Deposits (B5) Surface Soil Cracks (nundation Visible on	of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		2, 4A, and 4 alt Crust (B11 quatic Inverte rdrogen Sulfi rdidized Rhizo esence of Re escent Iron Re unted or Stre	IB) 1) bebrates (B13) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo	g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X	ery (C
Wetland Hyd Primary Indic F S V S S C A A II S C A A S C A A S C A A S C A A S S C A A S S S S S S S S S S S S S	cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 ron Deposits (B5) Surface Soil Cracks (of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		2, 4A, and 4 alt Crust (B11 quatic Inverte rdrogen Sulfi rdidized Rhizo esence of Re escent Iron Re unted or Stre	IB) 1) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo essed Plants (g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A	ery (C
Wetland Hyd Primary Indic F S V S S C A A II S C A A S C A A S C A A S C A A S S C A A S S S S S S S S S S S S S	cators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 ron Deposits (B5) Surface Soil Cracks (nundation Visible on Sparsely Vegetated C	of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		2, 4A, and 4 alt Crust (B11 quatic Inverte rdrogen Sulfi rdidized Rhizo esence of Re escent Iron Re unted or Stre	IB) 1) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo essed Plants (g Living Roots (C3) C4) wed Soils (C6)	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A	ery (C
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Wetland Hyd Primary Indic Primary Indic F S V S S Field Observ Surface Water I Water Table Pr Saturation Press (includes capillary	Arology Indicator ators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Orift Deposits (B3) Algal Mat or Crust (B4 ron Deposits (B5) Surface Soil Cracks (nundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes sent? Yes y fringe)	of one req 2) B2) 4) (B6) Aerial Ima Concave Su	ngery (B7) urface (B8) No X No X No X	Wa 1, 2 Sal Aqu Hyo Oxi Pre Re Stu Oth Depth (inc Depth (inc	2, 4A, and 4 alt Crust (B11 juatic Inverte rdrogen Sulfi iddized Rhizo esence of Re ecent Iron Re unted or Stre her (Explain ches): ches): ches):	<pre>HB) 1) ebrates (B13) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo essed Plants (in Remarks) >18 >18</pre>	g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A) Wetland Hyc	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)	ery ((
Wetland Hyd Primary Indic Primary Indic F S V S S Field Observ Surface Water I Water Table Pr Saturation Press (includes capillary	Arology Indicator ators (minimum o Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Orift Deposits (B3) Algal Mat or Crust (B4 ron Deposits (B5) Surface Soil Cracks (nundation Visible on Sparsely Vegetated C vations: Present? Yes resent? Yes sent? Yes y fringe)	of one req 2) B2) 4) (B6) Aerial Ima Concave Su	ngery (B7) urface (B8) No X No X No X	Wa 1, 2 Sal Aqu Hyo Oxi Pre Re Stu Oth Depth (inc Depth (inc	2, 4A, and 4 alt Crust (B11 juatic Inverte rdrogen Sulfi iddized Rhizo esence of Re ecent Iron Re unted or Stre her (Explain ches): ches): ches):	<pre>HB) 1) ebrates (B13) ide Odor (C1) ospheres alon educed Iron (C eduction in Plo essed Plants (in Remarks) >18 >18</pre>	g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A) Wetland Hyc	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)	ery ((
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	WETLAND	DETERM	/INATIO	N DATA FOI	RM - Weste	rn Mountain	ns, Vall	eys, and	d Coast	PHS # Region	6338
roject/Site:		g Property		City/County:		rhart/Clatsop	.,	•	ng Date:	-	8/2018
oplicant/Owner:	Bill Palmb	erg					State:	OR	S	ampling Point:	9
estigator(s): SE/JT/CM/CR		Section, To	wnship, Range:		Section	10, Town	ship 6N, F	Range 10W			
ndform (hillslope			Flats	_ ,		ncave, convex, nor		,		Slope (%):	
Ibregion (LRR):	, , ,	LRR A		Lat:	46.025		, Long:	-123	9087	Datum:	WGS84
	e:		arrenton L	_ .oamy Fine Sa			· -	sification:		– None	
e climatic/hydrolo				-	Yes	x		-		n in Remarks)	
e vegetation	0			significantly dist		Are "Normal Cir			-		
e vegetation		_				, explain any answ		-			
						, oxplain any anow		iano.)			
UMMARY OF	F FINDINGS	– Attach	site map	showing san	npling point	locations, tra	insects,	, importa	int featur	res, etc.	
drophytic Vegeta	ation Present?	Yes	X No		Is Sampled Ar						
/dric Soil Present	?	Yes	X No		a Wetlar		Yes	Х	No		
etland Hydrology	Present?	Yes	X No								
emarks:											
EGETATION	- Use scien	tific name				<u> </u>					
			absolute % cover	Dominant Species?	Indicator Status	Dominance T	est work	sheet:			
ee Stratum (pl	lot size:) —				Number of Domi	inant Spec	ies			
						That are OBL, F	ACW, or F	AC:		1	(A)
								-			. ,
						Total Number of	Dominant				
						Species Across	All Strata:			1	(B)
			0	= Total Cover				_			
pling/Shrub Strat	tum (plot size	:)				Percent of Domin	nant Speci	ies			
	ŭ					That are OBL, F	•		10	0%	(A/B)
								_			. ,
						Prevalence In	ndex Wo	rksheet:			
						Total % Cover of	f	Ν	/lultiply by:	_	
						OBL Speci	ies		x 1 =	0	
			0	= Total Cover		FACW spec	cies		x 2 =	0	
						FAC Speci	ies		x 3 =	0	
	lot size:	5)				FACU Spec			x 4 =	0	
Juncus effu			90	<u> </u>	FACW	UPL Speci			x 5 =	0	
Phalaris aru			5		FACW	Column Tot	tals _	0 (A)	0	(B)
Unidentified			5		(FAC)						
Lotus cornic	culatus		<1		FAC	Prevalence	e Index =B	/A =	#D	IV/0!	
						Hydrophytic)	Voqototi	n Indiaa	oro		
						Hydrophytic \	-			hytic Vegetatio	n
									e Test is >5		
			100	= Total Cover					e lndex is ≤ 3		
		_								ions ¹ (provide s	supporting
oody Vine Stratu	m (plot size:)					d	ata in Rema	arks or on a	separate shee	t)
							5	- Wetland N	Ion-Vascula	r Plants ¹	
							P	roblematic	Hydrophytic	Vegetation ¹ (E	xplain)
			0	= Total Cover		¹ Indicators of hyd		d wetland h	ydrology mu	ist be present,	unless
		_				disturbed or prob	olematic.				
Bare Ground in I	Herb Stratum	0				Hydrophytic Vegetation		Yes	х	No	

Profile Decentation: Description:	SOIL			PHS #	6	338			Sampling Point: 9
Chore (most) So Type Loamy Sand 0-6 10YR 3/1 97 5YR 3/4 3 C PL Loamy Sand 0-12 10YR 3/1 100			the depth	needed to docume			nfirm the absen	ce of indicators.)	
0.6 10YR 3/1 97 5YR 3/4 3 C PL Learny Sand 6-12 10YR 3/1 100	-					4		Tautura	Demerius
6-12 19YR 3/1 100 Loarny Sand *** Loarny Sand	. ,	<u>`</u>							Remarks
"Type: C-Consentation, D-Depletion, RM-Reduced Matry, CS-Covered of Coated Stand Grains. ************************************				51K 3/4			<u> </u>		
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ² : Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Black Histic (A2) Loamy Macky Mintral (F1) (except MLRA 1) Very Shallow Dark Surface (TF2) Depieted Bolw Dark Surface (A11) Depieted Marks (F2) Other (explain in Remarks) Depieted Bolw Dark Surface (A11) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type:	0-12	101K 3/1	100					Loany Sanu	
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ² : Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Black Histic (A2) Loamy Macky Mintral (F1) (except MLRA 1) Very Shallow Dark Surface (TF2) Depieted Bolw Dark Surface (A11) Depieted Marks (F2) Other (explain in Remarks) Depieted Bolw Dark Surface (A11) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type:									
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Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ² : Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Hatosol (A1) X Sandy Rodx (S5) 2 cm Mack (A10) Black Histic (A2) Loamy Macky Mintral (F1) (except MLRA 1) Very Shallow Dark Surface (TF2) Depieted Bolw Dark Surface (A11) Depieted Marks (F2) Other (explain in Remarks) Depieted Bolw Dark Surface (A11) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) ¹ Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type:						·			
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Histosol (A1) X Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedin (A2) Stripped Matrix (S6)								Indic	-
Histic Epipedon (A2) Stripped Matrix (56) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shaltwor Dark Surface (TF12) Depleted Blow Dark Surface (A11) Depleted Matrix (F2) Other (oxplain in Remarks) Depleted Blow Dark Surface (A12) X Redx Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present); Type:	-			,					-
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Sufface (A12) Depleted Matrix (F2) Other (explain in Remarks) Back Histic (A3) Depleted Matrix (F2) Other (explain in Remarks) Restrictive Layer (If present): Type: Depleted Matrix (F2) No Depleted Matrix (F3) Redox Depressions (F8) Problemate. No Restrictive Layer (If present): Type: Hydrology must be present, unless distubed or problemate. No Remarks: Cobble beginning around 6 inches does not appear to be native but part of historic fill. Secondary Indicators (2 or more required). X Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (MLRA1, 2, 4, and 49) X Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (MLRA1, 2, 4, and 49) X Saturation (A3) Sat Crust (B1) Drainage Patterns (B10) X Saturation (A3) Sat Crust (B1) Dry-Season Mater Table (C2) Mater Marks (B1) Aquatic Invertexted Cor (C1) Saturation (Nater Cable (C2) Sediment Deposits (B3) Oxider Prizespheres along Living Roots (C3) Seecondary Indicators (D2) <						•			
Hydrogen Sulfide (A4) Loarny Gleyed Matrix (F2) Other (explain in Remarks) Depleted Below Dark Surface (A12) X Redox Dark Surface (A12) ************************************						•	. ,	except MLRA 1)	
Depteded Below Dark Surface (A1) Depteded Matrix (F3) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Depteded Dark Surface (F7) Sandy Mucky Mineral (S1) Depteded Dark Surface (F7) Protein Sandy Mucky Mineral (S1) Depteded Dark Surface (F7) Protein Surface (F7) Protein Surface (F7) Protein Surface (F7) Secondary Indicators (T7) X Surface Water (A1) Surface (F7) X Surface Water (A1) Surface (F7) X Surface Water (A1) Surface Water (A1) X Surface Water (A1) Surface Water (A1) X Surface Water (A3) Surface Water (A1) Surface			.)			•			
Thick Dark Surface (A12) X Radox Dark Surface (F6) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:				۵ 1 1)		• • •			
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) ¹ Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If present): Type:		-		(11)	X	•			
						•			
Restrictive Layer (If present): Type: Depth (inches):									
Type:							()		P
Depth (inches): Hydric Soil Present? Yes X No Remarks: Cobble beginning around 6 inches does not appear to be native but part of historic fill. HYDROLOGY Water and Hydrology Indicators: Secondary Indicators (2 or more required) X Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X Surface Water (A1) Corner required) Water stained Leaves (B9) X Surface Water (A1) Drainage Patterns (B10) Drainage Patterns (B10) X Saturation (A3) Sati Crust (B11) Drainage Patterns (B10) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B2) Hydrogen Suffice Odor (C1) Saturation Visible on Aerial Imagery (C9 Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Agal Mat or Crust (B4) Presence Returne Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Sturted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D0) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Pre		ayer (ii present).	•						
Remarks: Cobble beginning around 6 inches does not appear to be native but part of historic fill. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required). X Sufrace Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X High Water Table (A2) 1, 2, 4A, and 4B) Units and the dag) X High Water Table (A2) 1, 2, 4A, and 4B) Units attained Leaves (B1) Water Marks (B1) Aquatic Invertebrates (B13) Drinage Patterns (B10) Drinage Patterns (B10) Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Migh Mater Crust (B4) Presence of Reduced tron (C4) Shallow Aquated (D3) Saturation Visible on Aerial Imagery (C9) Surface Soil Cracks (B8) Sturted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Present? Yes X No Depth (inches): 0 Water Table Present? Yes X No Depth (inches): 0 Yes AAAAAA No Colspan="2">Cocoche Call Data (stream gauge, monitoring well, aerial photos, prev						_		Undria Cail Drag	aant2 Vaa V Na
Cobble beginning around 6 inches does not appear to be native but part of historic fill. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) X Surface Water (A1) Water stained Leaves (B9) (Except MLRA X High Water Table (A2) 1, 2, 4A, and 4B) X Saturation (A3) Saturation (A3) Water Marks (B1) Colspan="2">Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Statimation Visible on Aerial Imagery (C9 Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Aigal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Surface Water Table Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 0 </td <td></td> <td>J.</td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td>Hyunc Son Free</td> <td></td>		J.				_		Hyunc Son Free	
X Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) X Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Solis (C6) X Fac-Neutral Test (D5) Surface Water Present? Yes X No Depth (inches): 1 Saturation Present? Yes X No Depth (inches): 0 Vinduced Solal Craced Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes AdAAAAAA No			s:						
X High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) X Saturation (A3) Satt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 0 Yes AAAAAAA No Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Describens), if available: Yes AAAAAAAA No	Primary Indic	ators (minimum o	f one rec	uired; check all th	nat apply)			Secondary Indicators (2 or more required)
X Ingrit Nation (Ad) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stuned or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 0 Water Table Present? Yes X No Depth (inches): 0 Mater Table Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No							ed Leaves (B9) (Except MLRA	
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Wetland Hydrology Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes AAAAAAAA No	X +	High Water Table (A2	2)			1, 2, 4A, and	d 4B)		(MLRA1, 2, 4A, and 4B)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Wetland Hydrology Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No Depth (inches): 0 Yes AAAAAAAA No Depth (inches): 1 Yes AAAAAAAA No Depth (inches): 0 Yes AAAAAAAA No Depth (inches): 1 Yes AAAAAAAA No Depth (inches): 1 Yes AAAAAAAA	<u> </u>	Saturation (A3)				Salt Crust (E	311)		Drainage Patterns (B10)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Water Table Present? Yes X No Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Stavilable: Stavilable:	\	Vater Marks (B1)							Dry-Season Water Table (C2)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Vestand Hydrology Present? Surface Water Present? Yes X No Depth (inches): 0 Water Table Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No Depth Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: Yes AAAAAAAA No			32)						
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Vater Table Present? Yes X No Depth (inches): 0 Vetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: Vetland Present Vetland Present						•			
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 1 Water Present? Yes X No Depth (inches): 0 Water Table Present? Yes X No Depth (inches): 0 Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available:		• · ·	4)			-	,	,	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Image: Concave Surface (B8) Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Image: Concert Stream gauge in the stream gauge		,							
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Includes capillary fringe) Ves AAAAAAAA No			. ,	iden (B7)					
Surface Water Present? Yes X No Depth (inches): 1 Water Table Present? Yes X No Depth (inches): 0 Saturation Present? Yes X No Depth (inches): 0 Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAA No Includes capillary fringe) Yes X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:									
Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No (includes capillary fringe) X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:	Field Observ	vations:							
Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes AAAAAAAA No (includes capillary fringe) X No Depth (inches): 0 Yes AAAAAAAA No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available:			Х	No	Depth	(inches):	1		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Pr	esent? Yes	Х	No	Depth	(inches):	0	Wetland Hyd	Irology Present?
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			X	No	Depth	(inches):	0		Yes AAAAAAA No
emarks:			auge, mon	toring well, aerial ph	iotos, prev	ious inspecti	ons), if available	<u> </u>	
.emarks:									
lemarks:									
	Remarks:								

,	WETLAND) DETE	RMINATIC		RM - Weste	rn Mount	ains. Vall	evs, and	l Coast	PHS # Reaion	6338
Project/Site:	Palmbe			City/County:		rhart/Clatso		•	ng Date:	•	8/2018
Applicant/Owner:	Bill Palmb	•	<u> </u>				State:		-	ampling Point:	10
nvestigator(s):		JT/CM/C	CR	Section, To	wnship, Range:		Section	10, Town	ship 6N, F	Range 10W	
andform (hillslope,					Local relief (cor	ncave, convex,	none):	,		Slope (%):	
Subregion (LRR):		LRR	A	Lat:	46.02	52	Long:	-123.	9087	Datum:	
Soil Map Unit Name	e:		Warrenton	Loamy Fine Sa	nd		-	ssification:		None	
Are climatic/hydrolo				-	Yes	X	No	-		in Remarks)	
Are vegetation	•		ydrology		turbed?	Are "Normal	- I Circumstanc		-		
Are vegetation			ydrology		matic? If needed						-
J		_ `	, , , _			, i ,		,			
SUMMARY OF	FINDINGS	- Atta	ch site ma	o showing san	npling point	locations,	transects	, importa	nt featur	es, etc.	
lydrophytic Vegeta	tion Present?	Yes	XN	lo	Is Sampled Ar	aa within					
lydric Soil Present	?	Yes	XN	lo	a Wetlar		Yes		No		_
Vetland Hydrology	Present?	Yes	N	lo X							
Remarks:											
	<u></u>										
EGETATION	- Use scier	itific na		nts. Dominant	Indicator	Dominono	e Test worl	(abaat)			
			absolute % cover	Species?	Status	Dominanc	e rest wor	sneet:			
ree Stratum (plo	ot size:)	_ <u> </u>		Number of D	ominant Spec	ies			
1						That are OBI	L, FACW, or F	AC:		2	(A)
2											
3						Total Numbe	er of Dominant	t			
4						Species Acro	oss All Strata:	_		2	(B)
			0	= Total Cover							
apling/Shrub Strat	tum (plot size	e: 10)			Percent of D	ominant Spec	ies			
1 Rubus arme	niacus		15	<u> </u>	FAC	That are OB	L, FACW, or	FAC:	10	0%	(A/B)
2											
3				- <u> </u>			e Index Wo				
-						Total % Cove		N	lultiply by:	-	
5			15	= Total Cover		OBL S	-		x 1 =	0	-
			15			FACW s	· -		x 2 = x 3 =	0	-
lerb Stratum (plo	ot size:	5)			FACU S	-		x 4 =	0	-
1 Unidentified	grass		75	х	(FAC)	UPL S	pecies		x 5 =	0	_
2 Carex obnup	ota		10		OBL	Column	Totals	0 (/	A)	0	(B)
3 Plantago lan	nceolata		6	<u> </u>	FACU						
4 Lotus cornic	culatus		5		FAC	Prevale	ence Index =E	3/A =	#DI	V/0!	_
5 Hypochaeris	s radicata		2		FACU						
6 Fragaria ves	ica		1		FACU	Hydrophyt	ic Vegetati				
7				·						hytic Vegetatio	on
8				- T-+-! 0				2- Dominanc 8-Prevalence			
			99	= Total Cover		—				ons ¹ (provide	supportina
oody Vine Stratur	m (plot size:)							separate shee	
1			_					5- Wetland N			
2							F	Problematic I	Hydrophytic	Vegetation ¹ (E	Explain)
			0	= Total Cover			-	nd wetland h	ydrology mu	st be present,	unless
						disturbed or	•				
						Hydrophyt	IIC .				
% Bare Ground in F	Herb Stratum					Vegetation	า	Yes	Х	No	

SOIL			PHS #	6338	3			Sampling Po	oint:	10
	ption: (Describe to t	he depth	needed to docume			nfirm the absen	ce of indicators.)			
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	Redox F %	Type ¹	Loc ²	Texture	R	emarks	
0-7	7.5YR 2.5/2	100			.) 0		Loamy Sand		Smanks	
7-15	7.5YR 2.5/2	95	5YR 3/4		С	м	Loamy Sand			
7-15	7.011(2.0/2		5YR 3/4	 	c	PL	Loanty Gana	OR's		
15-18	7.5YR 3/3	100	511(5/4	_	0		Sand	013		
13-10	7.511(5/5	100					Sand			
						·				
						·				
¹ Type: C=Cond	centration, D=Depletio	on, RM=R	educed Matrix, CS=0	Covered or C	oated Sar	nd Grains.		² Location: PL=Pore Lini	ng, M=Matrix.	
Hydric Soil	Indicators: (Appli	cable to	all LRRs, unless	s otherwise	e noted.)	Indic	ators for Problemati	c Hydric Soi	ls ³ :
	Histosol (A1)			Sa	andy Redo	ox (S5)		2 cm Muc	k (A10)	
	Histic Epipedon (A2)			St	ripped Ma	ıtrix (S6)		Red Pare	nt Material (TF	2)
	Black Histic (A3)			Lo	amy Muc	ky Mineral (F1) (e	except MLRA 1)	Very Shal	low Dark Surfa	ce (TF12)
	Hydrogen Sulfide (A4)		Lo	amy Gley	ed Matrix (F2)		Other (ex	plain in Remark	ks)
	Depleted Below Dark	·	A11)		epleted Ma					,
	' Thick Dark Surface (A		,		•	Surface (F6)				
	Sandy Mucky Mineral	-				ark Surface (F7)		³ Indicators of hydrophyt		
	Sandy Gleyed Matrix				-	ressions (F8)		hydrology must be pre probl	sent, unless dis ematic.	sturbed or
	Layer (if present):					. ,		· · · · ·		
Type:										
Depth (inches	;):						Hydric Soil Pres	sent? Yes X	No	
Remarks:							,			
HYDROLO Wetland Hy	GY drology Indicator	s:								
Primary India	cators (minimum o	f one rec	uired; check all th	nat apply)				Secondary Indicato	rs (2 or more	required)
	Surface Water (A1)				ater stain 2, 4A, an	ed Leaves (B9) (d 4 B)	Except MLRA		iined Leaves (B , 2, 4A, and 4B	
	High Water Table (A2	2)								-
	Saturation (A3) Water Marks (B1)				alt Crust (I				Patterns (B10)	
	Sediment Deposits (E	22)			-	ertebrates (B13) ulfide Odor (C1)			on Water Table n Visible on Aer	
	Drift Deposits (B3)	<i>5</i> 2)			-		g Living Roots (C3)		hic Position (D2	
	Algal Mat or Crust (B4	4)				Reduced Iron (0			Aquitard (D3)	-)
	Iron Deposits (B5)	.,				Reduction in Plo	,		ral Test (D5)	
	Surface Soil Cracks (B6)				Stressed Plants (. ,		nt Mounds (D6)) (LRR A)
	Inundation Visible on	-	igery (B7)			ain in Remarks)	,, ,		ave Hummocks	
	Sparsely Vegetated C	Concave S	urface (B8)							
Field Obser	vations:									
Surface Water	Present? Yes		No <u>X</u>	Depth (in	ches):					
Water Table P	resent? Yes		No X	Depth (in	ches):	>18	Wetland Hyd	rology Present?		
Saturation Pre (includes capillar			No <u>X</u>	Depth (in	ches):	>18		Yes	No	X
	rded Data (stream ga	auge, mon	itoring well, aerial ph	iotos, previou	s inspecti	ons), if available	<u> </u>			
	ι σ	0	0 / 1							
Remarks:										

6338	PHS # Coast Region	eys, and Coa	ntains, Valley	/estern Mour	RM - We	N DATA FO	ERMINATION	AND DETE	WE
8/2018	Date: 3/28	Sampling Date:	sop	Gearhart/Clats		City/County:	erty	almberg Prope	roject/Site:
11	Sampling Point:	OR	State:					Palmberg	pplicant/Owner:
	nip 6N, Range 10W	10, Township 6l	Section 1	ange:	ownship, Rar	Section, To	CR	SE/JT/CM/	vestigator(s):
	Slope (%):		ex, none):	lief (concave, conve	Local relie	-		, etc.:)	andform (hillslope, terr
WGS84	087 Datum:	-123.9087	Long:	46.0246	46	Lat:	Α	LRR	ubregion (LRR):
	PEMIC	sification:	NWI Classif		and	– .oamy Fine Sa	Warrenton L		bil Map Unit Name:
	io, explain in Remarks)		No	Yes X		-		litions on the site	e climatic/hydrologic
		s" present? (Y/N)		Are "Norn	sturbed?		Hydrology		e vegetation
		,		needed, explain any		_	Hydrology		e vegetation
		,							<u> </u>
	t features, etc.	important fea	s, transects, i	point locations	mpling po	showing sar	ach site map	INGS – Atta	UMMARY OF FI
				oled Area within	Is Sample		X No	sent? Yes	ydrophytic Vegetation
	No X		Yes	Wetland?		Χ	No	Yes	ydric Soil Present?
						X	No	? Yes	etland Hydrology Pres
									emarks:
		abaat		ten De i	L. P. A			scientific na	EGETATION - U
		sneet:	nce Test works		Indicate Status	Dominant Species?	absolute % cover		
		es	Dominant Species)		<u>ee Stratum</u> (plot si
(A)	1	AC:	BL, FACW, or FA	That are C			-		
			ber of Dominant	Total Num					
(B)	1		cross All Strata:	Species A					l
						= Total Cover	0		
		es	Dominant Species	Percent of)	plot size:	apling/Shrub Stratum
(A/B)	100%	AC:	BL, FACW, or FA	That are C					
		ksheet:	ice Index Work	Prevaler					i
		Multiply b		Total % Co					
	x 1 = 0		Species						
	x 2 = 0 x 3 = 0		V species			= Total Cover	0		
	x 4 = 0		J Species)	5	er <u>b Stratum</u> (plot si
	x 5 = 0		Species		(FAC)	х			Unidentified gra
(B)	0	0 (A)	nn Totals	Colur	FACU		3	a	Plantago lanceo
				C	FAC		3		Rubus armenia
	#DIV/0!	A =	alence Index =B/A	W Prev	FACW		2		Juncus effusus
					OBL		2		Carex obnupta
			ytic Vegetation	C Hydroph	FAC		1		Rumex crispus
n	or Hydrophytic Vegetation								
		Dominance Test is				- T-4 + 0	404		
supportina	Idex is $\leq 3.0^{\circ}$	Prevalence Index is Morphological Ada		-		= Total Cover	101		
	s or on a separate sheet			-)	t size:	oody Vine Stratum
	•	Wetland Non-Vaso							<u></u>
xplain)	drophytic Vegetation ¹ (E	roblematic Hydroph	Pro						
unless	rology must be present, u	d wetland hydrology	-			= Total Cover	0		
			or problematic.						
			•	Hydroph			•		
	X No	Yes X	on	Vegetati			0	atum	Bare Ground in Herb

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric S Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A2) Stripped Matrix (S6) Red Parent Material (T Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Sut Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Other (explain In Remi Depleted Below Dark Surface (A11) Depleted Matrix (F3) Sindicators of hydrophytic vegetation hydrology must be present, unless i problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) andicators of hydrophytic vegetation hydrology must be present, unless i problematic. Pripe:	OR's Gravel Gravel & Cobble Gravel & Cobble 2 2 2 Cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. esent? Yes No X Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C3 Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Indices Color (most) % Color (most) % Type Loar Taturo Remate 0-8 7.3YR 2.5/2 88 5YR 344 1 C PL Sandy Loar OP's 8-16 7.5YR 2.5/2 60	OR's Gravel Gravel & Cobble 2 2Location: PL=Pore Lining, M=Matrix. Cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. esent? Yes No Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
0-3 7.5YR 2.5/2 85 5YR 3/4 1 C PL Sandy Loam OR's 6-6 Gravel 10	OR's Gravel Gravel & Cobble 2 2Location: PL=Pore Lining, M=Matrix. Cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. esent? Yes No Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
0-8 Gravel 10 Gravel 8-16 Zobble 40 Gravel & Cobble 8-16 Cobble 40 Gravel & Cobble 10 Gravel & Cobble Gravel & Cobble 11 Gravel & Graver & Graver & Grave & Graver & Grave & Grave & Graver	Gravel Gravel & Cobble Gravel & Cobble Cators for Problematic Hydric Soils ³ : Cators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Secondary Indicators (2 or more required) Cators
8-16 7.5YR 2.5/2 60	
8-16 Cobble 40 Gravel & Cobble Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cowered or Coated Sand Grains. *Location: PL=Plors Lining, M=Matrix Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cowered or Coated Sand Grains. *Location: PL=Plors Lining, M=Matrix Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cowered or Coated Sand Grains. *Location: PL=Plors Lining, M=Matrix Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cowered or Coated Sand Grains. *Location: PL=Plors Lining, M=Matrix Histosci (A1) Sandy Redux (S5) 2 or Mukx (A10) Histosci (A2) Stripted Matrix (S2) Redox Dark Surface (F1) Depleted Bark Surface (A12) Redox Dark Surface (F2) Ofther (septian in Remi Depleted Bark Surface (F2) Sandy Mukzy Mineral (S1) Depleted Dark Surface (F2) *Indicators of hydrophytic vegetation hydrology must be present, unless. problematic. Ypric:	2Location: PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. esent? Yes No X Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered of Coated Sand Grains. *Location, PL-Pore Lining, M-Matrix type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered of Coated Sand Grains. Indicators for Problematic Hydric S type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered of Coated Sand Grains. *Location, PL-Pore Lining, M-Matrix type: C-Concentration, D-Depletion, RM-Reduced Matrix, CS-Covered of Coated Sand Grains. Indicators for Problematic Hydric S Histics Epipotion (A2) Stripped Matrix (S4) Red Parent Material (1) Depletion Bains, Matrix (A1) Loarry Mudry Mineral (F1) Very Shailow Dark Surface (A11) Depletion Bains, Watry Mineral (S1) Depletion Dark Surface (F2) */indicators in hydrologival covepations Sandrador Gravetting (S1) Depletion Dark Surface (F7) */indicators in hydrologival covepations */indicators in hydrologival covepations Strippe: Sandrador (S4) Redox Depressions (F8) Secondary Indicators (Very Matrix (S4) Secondary Indicators (Very Matrix (S4) Strippe (Inches):	2Location: PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ : 2 cm Muck (A10) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. esent? Yes No X Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummood Sparsely Vegetated Concave Surface (B8) Vestand Hydrology Present? Vestand Hydrology Present? Vater Table Present? Yes No X Depth (inches): >16 Vater Table Present? Yes No X Depth (inches): Yes No aturation Present? Yes No X Depth (inches): 13 Yes No release Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: Stailable	Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummood Sparsely Vegetated Concave Surface (B8) Vegetated Concave Surface (B8) Vegetated Concave Surface (B8) Frost-Heave Hummood "ield Observations: No X Depth (inches): >16 Vegetated Hydrology Present? Vater Table Present? Yes No X Depth (inches): >16 Yes No aturation Present? Yes No X Depth (inches): 13 Yes No vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: No	Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) drology Present?
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummood Sparsely Vegetated Concave Surface (B8) Tield Observations: Frost-Heave Hummood wiface Water Present? Yes No X Depth (inches): >16 Wetland Hydrology Present? Yes No X Depth (inches): 13 Yes No wescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Invaluable: Invaluable	Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummood Sparsely Vegetated Concave Surface (B8) Frost-Heave Hummood ield Observations: No X Depth (inches): Value valuer Table Present? Yes No X Depth (inches): >16 valuer Table Present? Yes No X Depth (inches): >16 aturation Present? Yes No X Depth (inches): 13 Yes No vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available	Frost-Heave Hummocks (D7) drology Present?
Sparsely Vegetated Concave Surface (B8) Field Observations: urface Water Present? Yes No X Depth (inches): Vater Table Present? Yes No X Depth (inches): vater Table Present? Yes No X Depth (inches): aturation Present? Yes No X Depth (inches): ncludes capillary fringe) No vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	drology Present?
Sield Observations: No X Depth (inches): Water Table Present? Yes No X Depth (inches): >16 Wetland Hydrology Present? Vater Table Present? Yes No X Depth (inches): >16 Wetland Hydrology Present? Vater Table Present? Yes No X Depth (inches): >16 Yes No iaturation Present? Yes No X Depth (inches): 13 Yes No Includes capillary fringe) No X Depth (inches): 13 Yes No	
No X Depth (inches): Yes Water Table Present? Yes No X Depth (inches): >16 Wetland Hydrology Present? Vater Table Present? Yes No X Depth (inches): >16 Yes Yes No Vater Table Present? Yes No X Depth (inches): >13 Yes No vaturation Present? Yes No X Depth (inches): 13 Yes No Includes capillary fringe) No X Depth (inches): 13 Yes No	
Vater Table Present? Yes No X Depth (inches): >16 Wetland Hydrology Present? aturation Present? Yes No X Depth (inches): 13 Yes No ncludes capillary fringe) Yes No X Depth (inches): 13 Yes No vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
No X Depth (inches): 13 Yes No Includes capillary fringe) No X Depth (inches): 13 Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Image: Stream gauge in the stre	
ncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Yes NoX
marks:	
emarks:	
marks:	
marks.	
ioils were saturated at depth but not enough water to pond in pit bottom.	

v	VETLAND DETE	RMINATIO	N DATA FOI	RM - Weste	rn Mountain	ns. Valle	evs. and Coa	PHS # ast Region	6338
Project/Site:	Palmberg Prope		City/County:		rhart/Clatsop		Sampling Date	-	8/2018
Applicant/Owner:	Bill Palmberg					State:	OR	Sampling Point	: 12
nvestigator(s):	SE/JT/CM/	CR	Section, To	wnship, Range:		Section	10, Township 6	N, Range 10W	
andform (hillslope, te	errace, etc.:)	Slope of P	ond	Local relief (co	ncave, convex, nor	ne):		Slope (%)	5-Mar
Subregion (LRR):	LRR	Α	Lat:	46.024	46	Long:	-123.9087	Datum	WGS84
oil Map Unit Name:		Warrenton L	_ .oamy Fine Sa	nd		NWI Class	sification:	PEMIC	
re climatic/hydrologi	ic conditions on the site	typical for this tin	ne of year?	Yes	Х	No	(if no, ex	plain in Remarks)	
re vegetation	Soil or H	ydrology	significantly dist	urbed?	Are "Normal Cir	cumstance	s" present? (Y/N)	Y	
re vegetation	Soil or H	ydrology	naturally probler	matic? If needed	l, explain any answ	ers in Rem	arks.)		-
SUMMARY OF	FINDINGS – Atta	-		npling point	locations, tra	insects,	important fea	atures, etc.	
lydrophytic Vegetatio	-	X No		Is Sampled Ar	ea within				
lydric Soil Present?	Yes	X No		a Wetla		Yes	X	No	-
Vetland Hydrology P	resent? Yes	X No							
Remarks:									
	Use scientific na	maa of plan	<u>ta</u>						
EGETATION -	Use scientific na	absolute	Dominant	Indicator	Dominance T	est work	sheet:		
		% cover	Species?	Status	Dominance				
<u>ree Stratum</u> (plot	size: 30)			Number of Domi	inant Specie	es		
Alnus rubra		30	X	FAC	That are OBL, F	ACW, or FA	AC:	4	(A)
3					Total Number of				
1					Species Across	All Strata:		4	(B)
		30	= Total Cover						
apling/Shrub Stratur	m (plot size: 15)			Percent of Domi	nant Specie	es		
Rubus armen	iacus	5	Χ	FAC	That are OBL, F	ACW, or F	AC:	100%	(A/B)
					<u> </u>				
3					Prevalence In				
5					Total % Cover of OBL Speci		Multiply	<u>·</u>	
		5	= Total Cover		FACW speci		x 1 : x 2 :	-	-
					FAC Speci		x 3 :		-
erb Stratum (plot	size: 5)			FACU Spec	cies	x 4 :	= 0	_
Unidentified g	Irass	75	Х	(FAC)	UPL Speci	ies	x 5 :	= 0	_
Lotus cornicu	ılatus	20	X	FAC	Column Tot	tals	0 (A)	0	(B)
B Plantago lanc	eolata	5		FACU					
1					Prevalence	e Index =B/	A =	#DIV/0!	-
5									
<u> </u>					Hydrophytic V	•			
7					,		Rapid Test for Hy		on
		100	= Total Cover		· · · · · · · · · · · · · · · · · · ·		Dominance Test i Prevalence Index i		
		100			<u> </u>		Morphological Ada		supporting
oody Vine Stratum	(plot size:)					ata in Remarks or o		
						5-	Wetland Non-Vas	cular Plants ¹	
2						Pr	oblematic Hydropl	nytic Vegetation ¹ (I	Explain)
		0	= Total Cover				l wetland hydrolog	y must be present,	unless
					disturbed or prot Hydrophytic	plematic.			
6 Bare Ground in He	erb Stratum	0			Vegetation		Yes X	No	•
					Present?				

Area is mowed. Cover for Rubus armeniacus is based on BPJ.

SOIL			PHS #	63	338			Sampling Point: 12
	ption: (Describe to	the depth	needed to docume			nfirm the absen	ce of indicators.)	
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	Redo	x Features Type ¹	Loc ²	Texture	Remarks
(incries) 0-4	10YR 3/1	95	5YR 3/4	5	C	 PL		OR's
4-16		90		2	 C	PL	Loamy Sand	
	10YR 3/1	90	5YR 3/3				Loamy Sand	OR's
4-16			5YR 3/3	8	C	<u> </u>	Loamy Sand	Large
						·		
						·		
						·		
						·		
	centration, D=Deplet							² Location: PL=Pore Lining, M=Matrix.
-	Indicators: (Appl	icable to	o all LRRs, unles	s otherw			Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)				Sandy Red			2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Ma			Red Parent Material (TF2)
	Black Histic (A3)				Loamy Muc	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A	4)			Loamy Gley	ved Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	c Surface (A11)		Depleted M	atrix (F3)		
	Thick Dark Surface (A12)		<u> </u>	Redox Dark	Surface (F6)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera	ıl (S1)			Depleted Da	ark Surface (F7)		hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)			Redox Dep	ressions (F8)		problematic.
Restrictive	Layer (if present)	:						
Type:					_			
Depth (inches	s):						Hydric Soil Pres	sent? Yes X No
Remarks:								
HYDROLO Wetland Hy	GY drology Indicator	rs:						
Primary Indi	cators (minimum o	of one rec	nuired: check all t	hat annly)			Secondary Indicators (2 or more required)
	Surface Water (A1)					ed Leaves (B9) (Except MLRA	Water stained Leaves (B9)
	High Water Table (A	2)		_	1, 2, 4A, an			(MLRA1, 2, 4A, and 4B)
	Saturation (A3)	_)			Salt Crust (B11)		Drainage Patterns (B10)
	Water Marks (B1)					ertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)				ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9
	Drift Deposits (B3)	,		х			g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B	4)			Presence of	f Reduced Iron (C	C4)	Shallow Aquitard (D3)
	Iron Deposits (B5)				Recent Iron	Reduction in Plo	wed Soils (C6)	Fac-Neutral Test (D5)
	Surface Soil Cracks	(B6)			Stunted or St	Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible or	Aerial Ima	agery (B7)		Other (Expl	ain in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated	Concave S	Surface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth	(inches):			
Water Table P	resent? Yes		No X	Depth	(inches):	>16	Wetland Hyd	Irology Present?
Saturation Pre			No X	Depth	(inches):	>16		Yes X No
(includes capilla			itaring wall parial ph	atao provi	ious inspect	iono) if ovoilable		
Describe Reco	orded Data (stream g	auge, mon	noning weil, aenai pr	lotos, prev	ious inspect	ions), il available		
Domortico								
Remarks:								

		DETER	απινατιο	Ν ΠΑΤΑ ΕΩΙ	RM - Weste	rn Mountain	s Valle	evs and	Coast	PHS #	6338
Project/Site:	Palmberg			City/County:		rhart/Clatsop	o, van	Samplin		-	/2018
Applicant/Owner:	Bill Palmbe		<u>,</u>	, ,			State:	-	-	ampling Point:	13
nvestigator(s):		JT/CM/C	R	Section, To	wnship, Range:		Section	10, Towns	ship 6N, F	Range 10W	
andform (hillslope,						ncave, convex, non		,	· · ·	Slope (%):	
ubregion (LRR):		LRR A	1	Lat:	46.024		Long:	-123.9	087	Datum:	WGS84
oil Map Unit Name	<i>.</i>			- ine Sandy Loai			-	sification:		PFOC	
re climatic/hydrolog		the site t		-	Yes	x	No			in Remarks)	
re vegetation	•			significantly dist		Are "Normal Circ			•		
re vegetation		-	drology			, explain any answe			(1714)	· · ·	
						, oxprain any anom		laintei)			
UMMARY OF	FINDINGS -	- Attac	h site map	showing san	npling point	locations, tra	nsects,	importa	nt featur	es, etc.	
ydrophytic Vegetat	tion Present?	Yes	X No	·	Is Sampled Ar						
lydric Soil Present?	?	Yes	X No		a Wetlar		Yes	Х	No		
etland Hydrology	Present?	Yes	X No								
emarks:											
EGETATION	- Use scient	ific nan	•			I- ·					
			absolute % cover	Dominant Species?	Indicator Status	Dominance To	est work	sheet:			
ree Stratum (plo	ot size:	30)				Number of Domir	nant Speci	es			
Alnus rubra			70	х	FAC	That are OBL, FA	ACW, or F.	AC:	:	3	(A)
3						Total Number of	Dominant				
4						Species Across A	All Strata:		;	3	(B)
			70	= Total Cover							
apling/Shrub Strate	um (plot size:	10)			Percent of Domir	nant Speci	es			
Alnus rubra			50	Х	FAC	That are OBL, FA	ACW, or F	AC:	10	0%	(A/B)
3						Prevalence In		ksheet:			
1						Total % Cover of		M	ultiply by:		
5						OBL Specie	-		x 1 =	0	
			50	= Total Cover		FACW spec FAC Specie	_		x 2 = x 3 =	0	
erb Stratum (plo	ot size:	5)				FACU Spec			x 4 =	0	
Carex obnup			100	х	OBL	UPL Specie			x 5 =	0	
2 Hedera helix	•		1		FACU	Column Tot	als	0 (A	.)	0	(B)
3											
1						Prevalence	e Index =B/	/A =	#DI	V/0!	
5											
<u> </u>						Hydrophytic V	-				
						— <u> </u>				nytic Vegetatio	n
			101	= Total Cover				- Dominance -Prevalence			
			101							ons ¹ (provide s	supporting
oody Vine Stratun	<u>n</u> (plot size:)							separate sheet	
			-				5-	- Wetland No	on-Vascular	Plants ¹	
2							P	roblematic H	lydrophytic	Vegetation ¹ (E	xplain)
			0	= Total Cover		¹ Indicators of hyd		d wetland hy	drology mu	st be present,	unless
						disturbed or prob Hydrophytic	lematic.				
			-					Vaa	v	Na	
6 Bare Ground in H	lerb Stratum		0			Vegetation		Yes	Х	No	

The transition from Carex dominated to mowed portion includes Juncus effusus, Oenanthe sarmentosa, and Lonicera involucrata.

SOIL			PHS #	633	8			Sampling Point:	13
	ption: (Describe to	the depth	needed to docume			nfirm the absen	ce of indicators.)		
Depth (Inches)	Matrix Color (moist)	%	Color (moist)	%	Features Type ¹	Loc ²	Texture	Remarks	
<u> </u>	10YR 2/1	100		70	1300	200		Temano	
			7 5VD 2/2				Sandy Loam	Fine	
4-9	10YR 2/2	88	7.5YR 3/3	2	С	M	Sandy Loam	Fine	
4-9	Gravel	10						Gravel	
9-12	10YR 2/2	95	5YR 3/3	5	С	M	Sandy Loam	Fine	
	·								
¹ Type: C=Cond	centration, D=Depleti	on, RM=R	educed Matrix, CS=	Covered or C	Coated San	d Grains.		² Location: PL=Pore Lining, M=Mat	
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwis	e noted.)		Indic	ators for Problematic Hydric S	3oils ³ :
	Histosol (A1)			S	andy Redo	x (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			S	tripped Ma	trix (S6)		Red Parent Material	(TF2)
	Black Histic (A3)			L	oamy Muck	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark S	urface (TF12)
	Hydrogen Sulfide (A4	4)		Lo	oamy Gleye	ed Matrix (F2)		X Other (explain in Ren	narks)
	Depleted Below Dark	Surface (A11)	D	epleted Ma	atrix (F3)			
	Thick Dark Surface (A12)		R	edox Dark	Surface (F6)			
	Sandy Mucky Minera	I (S1)		D	epleted Da	ark Surface (F7)		³ Indicators of hydrophytic vegetatio	
	Sandy Gleyed Matrix	(S4)		R	edox Depr	essions (F8)		hydrology must be present, unless problematic.	; disturbed or
Restrictive	Layer (if present)								
Type:									
Depth (inches	s):						Hydric Soil Pres	sent? Yes <u>X</u> No	·
prior. Soils	have a high orga d below 9 inches	nic cont	ent but are not o	quite muck	y enougl	n to be consid	dered histic. Fro	dified conditions; likely from m 4 to 9 mottles are 1 chroma	
	drology Indicator	·c ·							
_									
	cators (minimum c	of one rec	uired; check all t			(DO) (Secondary Indicators (2 or m	<u> </u>
	Surface Water (A1)	0)			, 2, 4A, an d	ed Leaves (B9) (I 1 4B)	Except MLRA	Water stained Leave (MLRA1, 2, 4A, and	. ,
	High Water Table (A	2)						-	-
	Saturation (A3)				alt Crust (E			Drainage Patterns (B	
	Water Marks (B1)					rtebrates (B13)		Dry-Season Water Ta	
	Sediment Deposits (I	32)				ulfide Odor (C1)	r Living Deate (C2)	Saturation Visible on	
	Drift Deposits (B3)	4)					g Living Roots (C3)	Geomorphic Position	
	Algal Mat or Crust (B	4)				Reduced Iron (C	,	Shallow Aquitard (D3	-
	Iron Deposits (B5)					Reduction in Plo stressed Plants (I	. ,	X Fac-Neutral Test (D5 Raised Ant Mounds (
	Surface Soil Cracks		ann (R7)			ain in Remarks)		Frost-Heave Hummo	
	Sparsely Vegetated (0		an in itenaits)			
· · · · · · · · · · · · · · · · · · ·	· · · ·		4.1400 (20)						
Field Obser				Danth (i)	nehee);				
Surface Water			No <u>X</u>	Depth (ir	-	5	Watland Lud	Irology Brocont?	
Water Table P		<u> </u>	No	Depth (ir	-			Irology Present?	
Saturation Pre (includes capillar		<u> </u>	No	Depth (ir	ncnes):	1		Yes <u>X</u> No	
Describe Reco	orded Data (stream g	auge, mon	itoring well, aerial pl	hotos, previou	us inspectio	ons), if available:			
Remarks:									

\ / /E				PM - Wosto	rn Mountai	ne Vallo	ys, and Coast	PHS #	6338
Project/Site:	Palmberg Pro		City/County:		rhart/Clatsop		Sampling Date:	•	/2018
	Bill Palmberg	perty	City/County.	Gea	mar / Clatsop	State:		Sampling Point:	14
Investigator(s):	SE/JT/CN	N/CR	Section To	wnship, Range:			0, Township 6N,		14
Landform (hillslope, terra		Mound			ncave, convex, no			Slope (%):	
Subregion (LRR):	· · · ·	RA	Lat:	46.024		Long:	-123.9087	Datum:	WGS84
Soil Map Unit Name:			ne Sandy Loa			NWI Classi		PFOC	110004
Are climatic/hydrologic o	conditions on the si		-	Yes	X	No		n in Remarks)	
Are vegetation		· Hydrology					" present? (Y/N)		
		· Hydrology			, explain any answ				
Are vegetation					, explain any ansi		iks.)		
SUMMARY OF FI	NDINGS – At	tach site map	showing sar	npling point	locations, tra	ansects, i	mportant featu	res, etc.	
Hydrophytic Vegetation	Present? Yes	X No							
Hydric Soil Present?	Yes	No	X	Is Sampled Ar a Wetlar		Yes	N	o X	
Wetland Hydrology Pres	sent? Yes	No	Х						
Remarks:									
VEGETATION - U	se scientific r								
		absolute % cover	Dominant Species?	Indicator Status	Dominance 1	Test works	heet:		
Tree Stratum (plot siz	ze:)	000000	Oldido	Number of Dom	ninant Specie	S		
1					That are OBL, F	•		3	(A)
2									. ,
3					Total Number o	f Dominant			
4					Species Across	All Strata:		5	(B)
		0	= Total Cover						
Sapling/Shrub Stratum	(plot size: 1	5_)			Percent of Dom	inant Species	6		
1 Gaultheria shall	on	40	Х	FACU	That are OBL, F	FACW, or FA	NC: 6	60%	(A/B)
2 Laurel sp.		30	Χ	(FAC)					
3 Crataegus sp.		20	Χ	(FAC)	Prevalence I	ndex Work	sheet:		
4 Vaccinium parv	ifolium	10		FACU	Total % Cover of		Multiply by:	-	
5					OBL Spec		x 1 =	0	
		100	= Total Cover		FACW spe FAC Spec		x 2 = x 3 =	0	
Herb Stratum (plot siz	ze: 5)			FACU Spe	-	x 4 =	0	
1 Carex obnupta		60	х	OBL	UPL Spec		x 5 =	0	
2 Polystichum mu	ınitum	10		FACU	Column To	otals	0 (A)	0	(B)
3									
4					Prevalenc	ce Index =B/A	.= #C	0IV/0!	
5									
6					Hydrophytic	-			
7							Rapid Test for Hydro		n
8			- Tatal Oaur				Dominance Test is > Prevalence Index is ≤		
		70	= Total Cover		<u> </u>		/revalence index is ≤ /lorphological Adapta		upporting
Woody Vine Stratum	(plot size: 5	;)					a in Remarks or on a		
1 Hedera helix		10	x	FACU	_	5- \	Wetland Non-Vascul	ar Plants ¹	
2		_				Pro	blematic Hydrophytic	vegetation ¹ (E	xplain)
		10	= Total Cover				wetland hydrology m	ust be present,	unless
					disturbed or pro	blematic.			
					Ludroph 41-				
% Bare Ground in Herb	Stratum	20			Hydrophytic Vegetation		Yes X	No	

SOIL			PHS #	6338			Sampling Point:	14
	• •	the depth r	needed to documer	nt the indicator or cor	nfirm the absen	ce of indicators.)		
Depth	Matrix			Redox Features	Loc ²	- .	. .	
(Inches)	Color (moist)	%	Color (moist)	% Type ¹	LOC	Texture	Remarks	
0-2	7.5YR 3/1	100				Loamy Sand		
2-10	7.5YR 2.5/3	100				Loamy Sand		
10-12	10YR 3/3	100				Sand		
	·							
	·							
				,				
¹ Type: C=Con	icentration, D=Depleti	on, RM=Re	educed Matrix, CS=(Covered or Coated San	d Grains.		² Location: PL=Pore Lining, M=Mat	rix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unless	s otherwise noted.))	Indic	ators for Problematic Hydric	•
	Histosol (A1)			Sandy Redo	ox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped Ma	trix (S6)		Red Parent Material	(TF2)
	Black Histic (A3)			Loamy Mucl	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark S	urface (TF12)
	Hydrogen Sulfide (A4	1)		Loamy Gley	ed Matrix (F2)		Other (explain in Rer	narks)
	Depleted Below Dark	Surface (A	\11)	Depleted Ma	atrix (F3)			
	Thick Dark Surface (,		Surface (F6)			
	Sandy Mucky Mineral	-			ark Surface (F7)		³ Indicators of hydrophytic vegetatio	
	Sandy Gleyed Matrix				essions (F8)		hydrology must be present, unless problematic.	isturbed or
Restrictive	Layer (if present)	:						
Type:								
Depth (inche	s):					Hydric Soil Pres	sent? Yes No	x x
Remarks:								
HYDROLO								
	/drology Indicator							
-			uirad: abaak all th	at apply)			Sacandary Indicators (2 or m	oro required)
Primary Ind	icators (minimum o	or one req	Jired; check all th	11 37	ad Loaves (B0) (Secondary Indicators (2 or m	
	Surface Water (A1) High Water Table (A2	2)		1, 2, 4A, and	ed Leaves (B9) (d 4B)	Except MERA	Water stained Leave (MLRA1, 2, 4A, and	. ,
	Saturation (A3)			Salt Crust (E	311)		Drainage Patterns (B	10)
	Water Marks (B1)			Aquatic Inve	ertebrates (B13)		Dry-Season Water Ta	able (C2)
	Sediment Deposits (E	B2)		Hydrogen S	ulfide Odor (C1)		Saturation Visible on	Aerial Imagery (C9
	Drift Deposits (B3)			Oxidized Rh	izospheres along	g Living Roots (C3)	Geomorphic Position	(D2)
	Algal Mat or Crust (B	4)		Presence of	Reduced Iron (C	24)	Shallow Aquitard (D3	;)
	Iron Deposits (B5)			Recent Iron	Reduction in Plo	wed Soils (C6)	Fac-Neutral Test (D5)
	Surface Soil Cracks ((B6)		Stunted or S	Stressed Plants (D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible on	Aerial Ima	gery (B7)	Other (Expla	ain in Remarks)		Frost-Heave Hummo	cks (D7)
	Sparsely Vegetated (Concave Sı	ırface (B8)					
Field Obse	rvations:							
Surface Wate	r Present? Yes		No X	Depth (inches):				
Water Table F	Present? Yes		No X	Depth (inches):	>12	Wetland Hyd	Irology Present?	
Saturation Pre (includes capilla			No <u>X</u>	Depth (inches):	>12		Yes No	<u> X </u>
		aude moni ^r	toring well, aerial ph	otos, previous inspection	ons) if available			
December 100	sided Bala (eream ge	augo, moni	ioning won, donar pri					
Remarks:								

	WETLAND) DETEI	RMINATIO		RM - Weste	ern Mountains, Va	lleys, and (PHS Coast Regior	
oject/Site:		rg Propei		City/County:		arhart/Clatsop	Sampling	•	3/28/2018
oplicant/Owner:	Bill Palmb	berg	-			State:	OR	Sampling Po	oint: 15
/estigator(s):	SE	JT/CM/C	R	Section, To	wnship, Range:	Sectio	n 10, Townsh	nip 6N, Range 10	w
ndform (hillslope	, terrace, etc.:)		Swale		Local relief (co	ncave, convex, none):		Slope	(%):
bregion (LRR):		LRR A	4	Lat:	46.02	46 Long:	-123.90	9 82 Dat	um: WGS84
il Map Unit Name	e:		Warrenton	 Loamy Fine Sa	nd	NWI Cla	assification:	PFO	c
e climatic/hydrolc		on the site t			Yes	X No	(if n	o, explain in Remar	ks)
e vegetation	Soil	or Hy	/drology	significantly dist	urbed?	Are "Normal Circumstan	ces" present? (Y/N) Y	,
e vegetation	Soil	or Hy	/drology			d, explain any answers in Re	emarks.)		
	_								
UMMARY OF	F FINDINGS		ch site map	showing san	npling point	locations, transect	s, important	t features, etc.	
/drophytic Vegeta	ation Present?	Yes	X N	0	Is Sampled A	rea within			
/dric Soil Present	?	Yes	X N	0	a Wetla		<u>X</u>	No	
etland Hydrology	Present?	Yes	X N	0					
emarks:									
EGETATION	- Lleo ecior	tific nar	mos of nlar	nte					
	000 30101	o nai	absolute	Dominant	Indicator	Dominance Test wo	rksheet:		
			% cover	Species?	Status				
ee Stratum (pl		30)				Number of Dominant Spe			<i>(</i> 1)
Alnus rubra			30	<u> </u>	FAC	That are OBL, FACW, or	FAC:	3	(A)
						Total Number of Dominal		4	(B)
			30	= Total Cover		Species Across All Strata	i	4	(D)
uliu u/Ohmuh Otmo	.								
apling/Shrub Strat		e: 15	_)	v	FACW	Percent of Dominant Spe		760/	
Physocarpu	s capitalus		20	<u> </u>	FACW	That are OBL, FACW, o	r FAC:	75%	(A/B)
						Prevalence Index W	orksheet:		
						Total % Cover of	Mul	tiply by:	
						OBL Species	·	x 1 = 0	
			20	= Total Cover		FACW species		x 2 = 0	
		_ 、				FAC Species		x 3 = 0	
erb Stratum (pl		5)	40	v	0.01	FACU Species		x 4 = 0	
Carex obnup Hedera helix			<u>40</u> 10	<u> </u>	OBL FACU	UPL Species Column Totals	0 (A)	x 5 = 0	(D)
	•		10		FACU	Column Totals	0 (A)		(B)
, <u> </u>						Prevalence Index =	B/A =	#DIV/0!	
							·		
						Hydrophytic Vegetat	tion Indicator	s:	
							1- Rapid Test for	or Hydrophytic Vege	tation
						<u> </u>	2- Dominance 1		
			50	= Total Cover			3-Prevalence In		ide supporting
oody Vine Stratu	m (plot size:)				•	l Adaptations ¹ (prov s or on a separate s	
oody vine Stratui	<u></u> (piot size.		/					s or on a separate s I-Vascular Plants ¹	nootj
								drophytic Vegetation	1 ¹ (Explain)
			0	= Total Cover		¹ Indicators of hydric soil a			
								'	
2						disturbed or problematic.			
2 Bare Ground in F	Horb Stratum		50			Hydrophytic Vegetation	Yes	x	No

SOIL			PHS #	6338			Sampling Point:	15
Profile Descri	ption: (Describe to	the depth	needed to docume	ent the indicator or co	nfirm the absen	ce of indicators.)		
Depth	Matrix			Redox Features	. 2	_		
(Inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture	Remarks	8
0-12	10YR 2/1	60				Loamy Sand	Mucky Fine	
0-12	Cobble	40		<u> </u>			Cobble	
				<u> </u>				
				<u> </u>				
				<u> </u>				
				<u> </u>				
					·			
¹ Type: C=Con	centration, D=Deple	tion, RM=R	educed Matrix, CS=	Covered or Coated Sar	nd Grains.		² Location: PL=Pore Lining, M	=Matrix.
Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwise noted.)	Indic	ators for Problematic Hyd	lric Soils ³ :
	Histosol (A1)			Sandy Redo	ox (S5)		2 cm Muck (A10))
	Histic Epipedon (A2)		Stripped Ma	ıtrix (S6)		Red Parent Mate	erial (TF2)
	Black Histic (A3)			Loamy Mucl	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Da	ark Surface (TF12)
Х	Hydrogen Sulfide (A	4)		Loamy Gley	ed Matrix (F2)		Other (explain ir	n Remarks)
	Depleted Below Dar	k Surface (A11)	Depleted Ma	atrix (F3)			
	Thick Dark Surface	(A12)		Redox Dark	Surface (F6)			
	Sandy Mucky Minera	al (S1)		Depleted Da	ark Surface (F7)		³ Indicators of hydrophytic vege hydrology must be present, u	
	Sandy Gleyed Matrix	x (S4)		Redox Depr	ressions (F8)		problematic	
Restrictive	Layer (if present):						
Type:								
Depth (inches	z). 					Hydric Soil Pres	sent? Yes X	No
Remarks:								<u> </u>
Mucky soil,	areasv							
, ,								
HYDROLO	GY							
Wetland Hy	drology Indicato	rs:						
Primary Indi	cators (minimum	of one req	uired; check all t	hat apply)			Secondary Indicators (2	or more required)
X	Surface Water (A1)		i	Water staine	ed Leaves (B9) (Except MLRA	Water stained L	· · · ·
Х	High Water Table (A	A2)		1, 2, 4A, an	d 4B)		(MLRA1, 2, 4A	, and 4B)
Х	Saturation (A3)			Salt Crust (E	311)		X Drainage Patter	ns (B10)
	Water Marks (B1)			Aquatic Inve	ertebrates (B13)		Dry-Season Wa	ter Table (C2)
	Sediment Deposits	(B2)		X Hydrogen S	ulfide Odor (C1)		Saturation Visib	le on Aerial Imagery (C9)
	Drift Deposits (B3)			Oxidized Rh	izospheres alon	g Living Roots (C3)	X Geomorphic Pos	sition (D2)
	Algal Mat or Crust (I	34)		Presence of	Reduced Iron (C	C4)	Shallow Aquitar	d (D3)
	Iron Deposits (B5)			Recent Iron	Reduction in Plo	wed Soils (C6)	X Fac-Neutral Tes	t (D5)
	Surface Soil Cracks	(B6)		Stunted or S	Stressed Plants (D1) (LRR A)	Raised Ant Mou	nds (D6) (LRR A)
	Inundation Visible or	n Aerial Ima	gery (B7)	Other (Expla	ain in Remarks)		Frost-Heave Hu	mmocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes	х	No	Depth (inches):	2			
Water Table P	resent? Yes	x	No	Depth (inches):	2	Wetland Hyd	Irology Present?	
Saturation Pre	sent? Yes	х	No	Depth (inches):	0		Yes X	No
(includes capilla	ry fringe)							
Describe Reco	orded Data (stream g	gauge, mon	toring well, aerial pl	notos, previous inspecti	ons), if available	:		
Remarks:								

W		ETERMINATI		RM - Weste	ern Mountains, Val	levs, and Coast	PHS # t Region	6338
roject/Site:	Palmberg I		City/County:		arhart/Clatsop	Sampling Date:	•	/2018
· · · · · · · · · · · · · · · · · · ·	Bill Palmberg	· · · ·	- j j		•		Sampling Point:	16
vestigator(s):			Section, To	wnship, Range:		n 10, Township 6N,		-
andform (hillslope, te		Berr			ncave, convex, none):		Slope (%):	
ubregion (LRR):	· · · -	LRR A	Lat:	46.02		-123.9082	Datum:	WGS84
oil Map Unit Name:			Loamy Fine Sa			assification:	PFOC	110004
•		ne site typical for this		Yes	X No		in in Remarks)	
, ,								
re vegetation		, , , _	significantly dist		Are "Normal Circumstan	,	<u>Y</u>	
re vegetation	Soil	or Hydrology		nauc? Il needed	d, explain any answers in Re	marks.)		
UMMARY OF F	FINDINGS -	Attach site ma	p showing san	npling point	locations, transects	s, important featu	ıres, etc.	
ydrophytic Vegetatio	on Present? Y	′es	No X					
ydric Soil Present?	Y	/es	No X	Is Sampled A a Wetla		1	No X	
/etland Hydrology Pr	resent? Y	/es	No X	a wella	ind :			
emarks:								
emaiks.								
EGETATION -	Use scientif	ic names of pla	ants.					
		absolute	Dominant	Indicator	Dominance Test wo	rksheet:		
can Otratum () .	oizo.	% cover	Species?	Status				
ree Stratum (plot s		/	v	540	Number of Dominant Spe		•	(•)
Picea sitchens		<u> </u>	<u> </u>	FAC	That are OBL, FACW, or	FAC:	3	(A)
2 Tsuga heterop 3 Alnus rubra	Driylla	5	- <u> </u>	FACU FAC	Total Number of Dominar	. +		
Alnus rubra				140	Species Across All Strata		9	(B)
·		25	= Total Cover		opedies Acioss All Oliala	·	<u> </u>	(0)
anling/Chruch Stratum	~ () ()							
apling/Shrub Stratum		<u>15</u>)	v	FACU	Percent of Dominant Spe		220/	
Rubus ursinus		<u> </u>	_ <u>X</u>	FACU FACU	That are OBL, FACW, or	FAC:	33%	(A/B)
Cytisus scopa		20	<u> </u>	UPL	Prevalence Index W	orkshoot:		
Symphoricarp		<u> </u>		FACU	Total % Cover of	Multiply by:		
Physocarpus of		<u> </u>		FACW	OBL Species	x 1 =	0	
<u> </u>		100	= Total Cover		FACW species	x 2 =	0	
			-		FAC Species	x 3 =	0	
erb Stratum (plot s	size: 5)			FACU Species	x 4 =	0	
Polystichum n	nunitum	20	X	FACU	UPL Species	x 5 =	0	
2 Carex obnupta	а	10	<u> </u>	OBL	Column Totals	0 (A)	0	(B)
B Pteridium aqui	ilinum	10	<u> </u>	FACU				
1					Prevalence Index =	B/A = #	DIV/0!	
5								
<u> </u>					Hydrophytic Vegetat			
						1- Rapid Test for Hydro		1
3		40	= Total Cover			 2- Dominance Test is > 3-Prevalence Index is ≤ 		
		40	- rotal Cover			4-Morphological Adapta		upporting
oody Vine Stratum	(plot size:)				data in Remarks or on a		
·	_					5- Wetland Non-Vascul	• • •	
						Problematic Hydrophyti	c Vegetation ¹ (E)	(plain)
2		0	= Total Cover		¹ Indicators of hydric soil a	nd wetland hydrology m	ust be present, ι	inless
2					disturbed or problematic.			
2								
2 Bare Ground in Her		60			Hydrophytic Vegetation	Yes	No	x

SOIL			PHS #	63	50			Sampling Point:	16
-	ption: (Describe to	the depth	needed to docum			firm the absend	ce of indicators.)		
Depth (Inches)	Matrix	0/			K Features	Loc ²	Tautura	Dementer	
(Inches)	Color (moist)	%	Color (moist)	%	Туре'	LOC	Texture	Remarks	
0-3	10YR 2/1	100					Loamy Sand	Organic/roots	
3-12	10YR 3/4	70					Loamy Sand	Fine	
3-12	Cobble	30						Cobbles	
								2	
	entration, D=Deplet						Indic	² Location: PL=Pore Lining, M=Ma ators for Problematic Hydric	
-	Histosol (A1)		-,		Sandy Redo			2 cm Muck (A10)	
	Histic Epipedon (A2)				Stripped Mat			Red Parent Material	(TE2)
	Black Histic (A3)					xy Mineral (F1) (e	vcent MI RA 1)	Very Shallow Dark S	
		4)					ACEPT MERA I)	·	. ,
	Hydrogen Sulfide (A					ed Matrix (F2)		Other (explain in Rer	marks)
	Depleted Below Dark		411)		Depleted Ma				
	Thick Dark Surface (Surface (F6)		³ Indicators of hydrophytic vegetation	on and wetland
	Sandy Mucky Minera	ıl (S1)		I	Depleted Da	rk Surface (F7)		hydrology must be present, unles	
	Sandy Gleyed Matrix				Redox Depre	essions (F8)		problematic.	
Restrictive L	_ayer (if present)	1							
-									
					-				
Гуре: Depth (inches Remarks:):				-		Hydric Soil Pres	sent? Yes No	<u> X </u>
Depth (inches Remarks: HYDROLO		 rs:			- 		Hydric Soil Pres	sent? Yes <u>No</u> No	o <u>X</u>
Depth (inches Remarks: HYDROLO Netland Hyd	GY		uired; check all	that apply)	- 		Hydric Soil Pres	sent? Yes No	
Depth (inches Remarks: HYDROLO Netland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1)	of one req	uired; check all			ed Leaves (B9) (I			nore required) es (B9)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A	of one req	uired; check all		Water staine 1, 2, 4A, and	ed Leaves (B9) (I 1 4B)		Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and	nore required) es (B9) 1 4B)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3)	of one req	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B	ed Leaves (B9) (I 1 4B) 311)		Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E	nore required) es (B9) 1 4B) 810)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	of one req 2)	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13)		Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T	nore required) es (B9) 1 4B) 310) fable (C2)
Depth (inches Remarks: HYDROLO Wetland Hyd Primary Indic	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (of one req 2)	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invel Hydrogen Su	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on	nore required) es (B9) 1 4B) 310) Table (C2) 1 Aerial Imagery (C
Depth (inches Remarks: HYDROLO Netland Hyd Primary Indic Primary Indic	GY drology Indicator Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3)	of one req 2) B2)	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along	Except MLRA	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position	nore required) es (B9) 1 4B) 310) able (C2) a Aerial Imagery (C a (D2)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic	GY drology Indicator sators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (Drift Deposits (B3) Algal Mat or Crust (B	of one req 2) B2)	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Su Oxidized Rhi Presence of	ed Leaves (B9) (I J 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C	Except MLRA	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3	nore required) es (B9) 1 4B) B10) Gable (C2) A Aerial Imagery (C n (D2) B)
Depth (inches Remarks: HYDROLO Netland Hyd Primary Indic S S S S S S S S S S S S S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B ron Deposits (B5)	of one req 2) B2) B2)	uired; check all		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inve Hydrogen Su Oxidized Rhi Presence of Recent Iron I	ed Leaves (B9) (I d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D2 Fac-Neutral Test (D5	nore required) es (B9) 1 4B) 310) Table (C2) A Aerial Imagery (C a (D2) 3)
Depth (inches Remarks: HYDROLO Netland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B ron Deposits (B5) Surface Soil Cracks	2) 2) B2) 34) (B6)			Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 Fac-Neutral Test (D4 Raised Ant Mounds	nore required) es (B9) 1 4B) 310) (a Aerial Imagery (C a (D2) 3) 5) (D6) (LRR A)
Depth (inches Remarks: TYDROLO Vetland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B ron Deposits (B5)	2) 2) B2) 34) (B6) n Aerial Ima	igery (B7)		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	ed Leaves (B9) (I d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D2 Fac-Neutral Test (D5	nore required) es (B9) 1 4B) 310) (a Aerial Imagery (C a (D2) 3) 5) (D6) (LRR A)
Depth (inches Remarks: TYDROLO Vetland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B ron Deposits (B5) Surface Soil Cracks nundation Visible or Sparsely Vegetated (2) 2) B2) 34) (B6) n Aerial Ima	igery (B7)		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 Fac-Neutral Test (D4 Raised Ant Mounds	nore required) es (B9) 1 4B) 310) (a Aerial Imagery (C a (D2) 3) 5) (D6) (LRR A)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicator sators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B ron Deposits (B5) Surface Soil Cracks nundation Visible or Sparsely Vegetated of vations:	2) 2) B2) 34) (B6) n Aerial Ima	igery (B7)		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Invei Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 Fac-Neutral Test (D4 Raised Ant Mounds	nore required) es (B9) 1 4B) 310) (a Aerial Imagery (C a (D2) 3) 5) (D6) (LRR A)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic S S S S S S S S S S S S S	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B) Surface Marks (B5) Surface Soil Cracks nundation Visible or Sparsely Vegetated of vations: Present? Yes	2) 2) B2) 34) (B6) n Aerial Ima	igery (B7) urface (B8)		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Expla	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Position Shallow Aquitard (D3 Fac-Neutral Test (D4 Raised Ant Mounds	nore required) es (B9) 1 4B) 310) a Aerial Imagery (C a (D2) 3) 5) (D6) (LRR A)
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Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic Prima	GY drology Indicator sators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B ron Deposits (B5) Surface Soil Cracks nundation Visible or Sparsely Vegetated of vations: Present? Yes resent? Yes sent? Yes y fringe)	2) B2) B2) (B6) Aerial Ima Concave Su	igery (B7) urface (B8) No X No X No X		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Expla (inches): (inches):	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I in in Remarks) >12 >12 >12	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Positior Shallow Aquitard (D3 Fac-Neutral Test (D5 Raised Ant Mounds Frost-Heave Hummo	nore required) es (B9) 1 4B) 310) a Aerial Imagery (C n (D2) 3) 5) (D6) (LRR A) bocks (D7)
Depth (inches Remarks: HYDROLO Vetland Hyd Primary Indic Primary Indic Prima	GY drology Indicator sators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B ron Deposits (B5) Surface Soil Cracks nundation Visible or Sparsely Vegetated of vations: Present? Yes resent? Yes sent? Yes y fringe)	2) B2) B2) (B6) Aerial Ima Concave Su	igery (B7) urface (B8) No X No X No X		Water staine 1, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Oxidized Rhi Presence of Recent Iron I Stunted or S Other (Expla (inches): (inches):	ed Leaves (B9) (I 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plo tressed Plants (I in in Remarks) >12 >12 >12	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or m Water stained Leave (MLRA1, 2, 4A, and Drainage Patterns (E Dry-Season Water T Saturation Visible on Geomorphic Positior Shallow Aquitard (D3 Fac-Neutral Test (D5 Raised Ant Mounds Frost-Heave Hummo	nore required) es (B9) 1 4B) 310) a Aerial Imagery (6 n (D2) 3) 5) (D6) (LRR A) bocks (D7)

				/		ern Mountains, Val	-	_	
Project/Site:	Palmber	• ·	erty	City/County:	Gea	arhart/Clatsop	Sampling Date:	3/28	/2018
pplicant/Owner:	Bill Palmb					State:		Sampling Point:	17
vestigator(s):		JT/CM/		Section, To	wnship, Range:		10, Township 6N	-	
andform (hillslope	e, terrace, etc.:)		Pit		Local relief (co	ncave, convex, none):	Concave	Slope (%):	
ubregion (LRR):		LRR		Lat:	46.02	26 Long:	-123.9065	Datum:	WGS8
oil Map Unit Nam	ne:		Gearhart Fi	ne Sandy Loa	m		ssification:	None	
re climatic/hydrol	logic conditions o	n the site	typical for this tim	e of year?	Yes	X No	(if no, exp	lain in Remarks)	
re vegetation	Soil	or H	lydrology	significantly dis		Are "Normal Circumstanc	,	<u>Y</u>	
re vegetation	Soil	or H	lydrology	naturally proble	matic? If needed	l, explain any answers in Rei	marks.)		
	F FINDINGS	– Atta	ch site map	showing sar	npling point	locations, transects	, important feat	ures, etc.	
drophytic Veget		Yes	X No				•	ř	
ydric Soil Presen	it?	Yes	X No		Is Sampled A a Wetla			No X	
etland Hydrology	y Present?	Yes	No	x	u rrollu	_			
emarks:	-	-							
EGETATION	I - Use scien	tific na	mes of plant						
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:		
ree Stratum (p	olot size:	30)			Number of Dominant Spec	cies		
Alnus rubra	a		60	x	FAC	' That are OBL, FACW, or I		3	(A)
						Total Number of Dominan	t		
۱						Species Across All Strata:		3	(B)
			60	= Total Cover					
apling/Shrub Stra	atum (plot size	e: 15)			Percent of Dominant Spec	cies		
Rubus arme	eniacus		60	X	FAC	That are OBL, FACW, or	FAC:	100%	(A/B)
Cytisus sco	oparius		5		(UPL)				
3						Prevalence Index Wo			
						Total % Cover of	Multiply by		
			65	= Total Cover		OBL Species FACW species	x 1 = x 2 =	0	
			05			FAC Species	x 2 - x 3 =	0	
erb Stratum (p	olot size:	5)			FACU Species	x 4 =	0	
Unidentified	d grass		20	Х	(FAC)	UPL Species	x 5 =	0	
Polystichun	n munitum		10		FACU	Column Totals	0 (A)	0	(B)
3									
						Prevalence Index =E	3/A =	#DIV/0!	
5 						Hydrophytic Vegetati	on Indicators:		
, ,							1- Rapid Test for Hydr	rophytic Venetatio	n
3							2- Dominance Test is		
			30	= Total Cover			3-Prevalence Index is		
							4-Morphological Adap	tations ¹ (provide s	supporting
	um (plot size:)				data in Remarks or or	•)
							5- Wetland Non-Vasc		
1				- T-1 - 0			Problematic Hydrophy		
1			0	= Total Cover		¹ Indicators of hydric soil ar	iu wetiand hydrology	must be present, i	uniess
1						disturbed or problematic.			
Voody Vine Stratu 1 2						disturbed or problematic. Hydrophytic			

Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Below Dark Surface (A11) Depleted Matrix (F3) Image: Comparison of the composition of the compositing Roots (C6)	;
(Inches) Color (moist) % Type ¹ Loc ² Texture Remar 0-4 10YR 2/1 100 Loamy Sand Diffuse - Large 12-20 10YR 2/1 95 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 14/1 14/1 14/1 14/1 Loamy Sand Large	;
0.4 100'R 2/1 100 Learny Sand Diffuse - Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large 10Yrps: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=-Covered or Coated Sand Grains. *Location: PL=Pore Lining, 1 Hydrics Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy Histic Epipedon (A2) Sandy Redx (S5) 2 cm Muck (A1 Red Parent Mice 2 cm Muck (A1 Depleted Blow Dark Surface (A11) Depleted Matrix (F2) Other (explain Other (explain Depleted Blow Dark Surface (A11) Depleted Dark Surface (F7) *Indicators of hydrophylic vere hydrology must be present; problemat Type: Depth (inches): Sandy Mucky Mineral (S1) Deplet	7
4-12 10 YR 2/1 95 5 YR 3/4 95 C M Loamy Sand Diffuse - Large 12-20 10 YR 2/1 5 5 YR 3/4 95 C M Loamy Sand Large 12-20 10 YR 2/1 5 5 YR 3/4 95 C M Loamy Sand Large 11 10 YR 2/1 5 5 YR 3/4 95 C M Loamy Sand Large 11 10 YR 2/1 5 5 YR 3/4 95 C M Loamy Sandy Model Sandy Rodel Sand Grains. *Location: PL=Pore Lining, 1 11 Yep C-Concentration, D=Depletion, RM-Reduced Matrix (C3-Concentration, C42) Sandy Rodel S(5) 2 cm Muck (A1 Yeer Stalinotic (A1) Red Parent Mic Very Shallout Were Staline (F1) Were Staline (F2) Other (explain 11 Depleted Dark Surface (A1) Loamy Model Matrix (F2) Other (explain Notection F1 Notection F1 <td< th=""><th></th></td<>	
12-20 10YR 2/1 5 5YR 3/4 95 C M Loamy Sand Large	
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ?Location: PL=Pore Lining, 1 Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy Histic Epipedion (A2) Stripped Matrix (S6) 2 orn Muck (A1) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow D Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Other (explain Depleted Bow Dark Surface (A11) Depleted Dark Surface (F5) 3 Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) 1 Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) 1 Primary Indicators (Inpresent): Type: Problematic Type: Exemates: From 12-20" sand grains are coated. Secondary Indicators (B9) (Except MLRA 1) Multer Matrix (B1) Water stained Leaves (B9) (Except MLRA 1) Water stained High Water Table (A2) 1, 2, 4, and 48) Sardrace Water (A1) Water stained Leaves (B9) (Except MLRA 1) Water stained High Water Table (A2) 0 Saturation (A3) Saturation (K3) Dy-Season W Water stained Leaves (B9) (Except MLRA 1) Water stained High Water Table (A2) Mater Mater (B1) Aquatic Invertebrates (B13) <td< td=""><td></td></td<>	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy Histosol (A1) Sandy Redox (S5) 2 cm Muck (A1 Histo Epipedon (A2) Stripped Matrix (S6) Red Parent Me Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow E Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Other (explain Depleted Blow Dark Surface (A11) Depleted Matrix (F2) Other (explain Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) *Indicators of hydrophytic very hydrology must be present, problemati Sandy Gleyed Matrix (S4) Redox Depressions (F8) Problemati Restrictive Layer (If present): Type:	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy Histosol (A1) Sandy Redox (S5) 2 cm Muck (A1 Histo Epipedon (A2) Stripped Matrix (S6) Red Parent Me Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow E Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Bolow Dark Surface (A12) X Redox Dark Surface (F6) ************************************	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hy Histosol (A1) Sandy Redox (S5) 2 cm Muck (A1 Histo Epipedon (A2) Stripped Matrix (S6) Red Parent Me Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow E Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Bolow Dark Surface (A12) X Redox Dark Surface (F6) ************************************	
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Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Ma Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Vary Shallow E Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Vary Shallow E Other (explain Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (explain Thick Dark Surface (A12) X Redox Dark Surface (F6) ************************************	ric Soils ³ :
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow D Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Below Dark Surface (A11) Depleted Matrix (F3) "Indicators of hydrophylic very hydrology must be present, sandy Gleyed Matrix (S4) Private (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) "Indicators of hydrophylic very hydrology must be present, problemat Restrictive Layer (if present): Type: Hydric Soil Present? Yes X Remarks: From 12-20" sand grains are coated. Kettant data apply) Secondary Indicators (MIRA1, 2, 4/) Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (MIRA1, 2, 4/) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) Muthage Matrix (B1) Saturation (A3) Salt Crust (B1) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sectiment Deposits (B2) Hydrogen Suffice Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Cep Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Shallow Aquita Mater Sufface (B5))
Hydrogen Suffide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) 3*Indicators of hydrophytic very hydrology must be present, problemat Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) *Indicators of hydrophytic very hydrology must be present, problemat Restrictive Layer (if present): Type:	erial (TF2)
Hydrogen Suffide (A4) Loamy Gleyed Matrix (F2) Other (explain Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) 3 ^a Indicators of hydrophytic very hydrology must be present. Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) 3 ^a Indicators of hydrophytic very hydrology must be present. Sandy Gleyed Matrix (S4) Redox Depressions (F8) problematic transmitted of the present. Type:	ark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydro Coll Present? Yee: Hydric Soil Present? Perpendent Hydric Soil Present? Yee: Hydric Soil Present? Yee: Yees Depth (inches): Hydric Soil Present? Yee: Yees Depth (inches): K Remarks: From 12-20" sand grains are coated. Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA High Water Table (A2) 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Vater Marks (B1) Aquatic Invertebrates (B13) Dirti Deposits (B2) Hydrogen Suffide Odor (C1) Algal Mat or Crust (B4) Presence or Reduced Iron (C4) Saltration Visil Oxidized Rhizospheres along Living Roots (C3) X Geomorphic P	
Thick Dark Surface (A12) X Redox Dark Surface (F6) Sindicators of hydrophylic vere hydrology must be present, problemat Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) hydrology must be present, problemat Restrictive Layer (if present): Redox Depressions (F8) problemat Type: Depth (inches): Hydric Soil Present? Yes X Remarks: From 12-20" sand grains are coated. Hydric Soil Present? Yes X Wetland Hydrology Indicators: Primary Indicators (Innimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (Except MLRA High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4J) Saturation (A3) Salt Crust (B11) Drainage Patte Water Marks (B1) Aquatic Invertebrates (B3) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visil Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Agai Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) ³ Indicators of hydrophytic vet hydrology must be present, problemat Sandy Gleyed Matrix (S4) Redox Depressions (F8) problemat Restrictive Layer (if present):	
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Inydrology must be present, problemating the present problemating present problemating problema	etation and wetland
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Type: Hydric Soil Present? Yes X Remarks: From 12-20" sand grains are coated. X X HYDROLOGY Vetland Hydrology Indicators: Vetland Hydrology Indicators: X Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) 1, 2, 4A, and 4B) Water stained Water Marks (B1) Saturation (A3) Sati Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Secondary Indicator Visi Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Saturation Visi Magal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Solls (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heaver H	
Depth (inches): Hydric Soil Present? Yes X Remarks: From 12-20" sand grains are coated. K X HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (Except MLRA High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4J) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Pice Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquata Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	
Remarks: From 12-20" sand grains are coated. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4J) Saturation (A3) Salt Crust (B11) Drainage Patte Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Pice Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Reised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	
Remarks: From 12-20" sand grains are coated. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4J) Saturation (A3) Salt Crust (B11) Drainage Patte Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Pl Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Reised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	No
From 12-20" sand grains are coated. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Patter Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heaver H	
Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Patter Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Ter Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	
High Water Table (A2)1, 2, 4A, and 4B)(MLRA1, 2, 4ASaturation (A3)Salt Crust (B11)Drainage PatterWater Marks (B1)Aquatic Invertebrates (B13)Dry-Season WSediment Deposits (B2)Hydrogen Sulfide Odor (C1)Saturation VisiteDrift Deposits (B3)Oxidized Rhizospheres along Living Roots (C3)XAlgal Mat or Crust (B4)Presence of Reduced Iron (C4)Shallow AquitateIron Deposits (B5)Recent Iron Reduction in Plowed Soils (C6)Fac-Neutral TeSurface Soil Cracks (B6)Stunted or Stressed Plants (D1) (LRR A)Raised Ant ModeInundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Frost-Heave H	or more required)
Imigit Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patter Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Peter Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season W Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Prise Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Technologies (B5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	and 4B)
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visi Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Policy Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Technologies (B6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	ıs (B10)
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Processor Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	ter Table (C2)
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquita Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Technologies Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	le on Aerial Imagery (C
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Te Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	sition (D2)
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mo Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	1 (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave H	t (D5)
	nds (D6) (LRR A)
Sparsely Vegetated Concave Surface (B8)	mmocks (D7)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes No X Depth (inches): >20 Wetland Hydrology Present?	
Saturation Present? Yes No X Depth (inches): >20 Yes (includes capillary fringe) Yes Yes Yes	No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

WETLAND DETE	RMINATION	I DATA FO	RM - Weste	rn Mountains, Val	leys, and	l Coast	PHS # Region	6338
roject/Site: Palmberg Prope		City/County:		rhart/Clatsop	Samplin		-	8/2018
pplicant/Owner: Bill Palmberg				State:	OR	Sa	ampling Point:	18
vestigator(s): SE/JT/CM/C	CR	Section, To	wnship, Range:	Section	n 10, Town	ship 6N, F	Range 10W	
andform (hillslope, terrace, etc.:)	Flats	•	Local relief (cor	ncave, convex, none):			Slope (%):	
ubregion (LRR):	A	Lat:	46.02	7 Long:	-123.9	9059	Datum:	WGS84
bil Map Unit Name:	Gearhart Fin	ne Sandv Loa			ssification:		- None	
re climatic/hydrologic conditions on the site		-	Yes	X No			in Remarks)	
		significantly dist	turbed?	Are "Normal Circumstand		-		
		• • •		, explain any answers in Re	·	()		
J	, <u> </u>	. ,,		, 1 , 1 ,	,			
UMMARY OF FINDINGS – Attac	ch site map s	showing sar	npling point	locations, transects	, importa	nt featur	es, etc.	
ydrophytic Vegetation Present? Yes	X No		Is Sampled Ar	ea within				
ydric Soil Present? Yes	No	X	a Wetlar			No	X	
etland Hydrology Present? Yes	No	X						
emarks:								
EGETATION - Use scientific na	•		In	Deminer 7	leah c - t			
	absolute % cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:			
ee Stratum (plot size: 30)			Number of Dominant Spe	cies			
Picea sitchensis	20	Х	FAC	That are OBL, FACW, or	FAC:		6	(A)
Unidentified Laurel	20	Х	(FAC)					
Alnus rubra	10	Х	FAC	Total Number of Dominan	ıt			
				Species Across All Strata:	: <u> </u>		8	(B)
	50	= Total Cover						
pling/Shrub Stratum (plot size: 15)			Percent of Dominant Spec	cies			
Gaultheria shallon	30	Х	FACU	That are OBL, FACW, or	FAC:	7	5%	(A/B)
Rubus spectabilis	30	Х	FAC					
Rubus armeniacus	15	Х	FAC	Prevalence Index Wo	orksheet:			
Prunus sp. (Laurel)	10		(FAC)	Total % Cover of	M	lultiply by:	-	
llex aquifolium	5		FACU	OBL Species		x 1 =	0	
	90	= Total Cover		FACW species FAC Species		x 2 = x 3 =	0	
erb Stratum (plot size: 5)			FACU Species		x 3 – x 4 =	0	
Pteridium aquilinum	, 10	X	FACU	UPL Species		x 5 =	0	
Blechnum spicant	10	X	FAC	Column Totals	0 (A		0	(B)
				-				
				Prevalence Index =	B/A =	#DI	V/0!	
				Hydrophytic Vegetati	ion Indicate	ors:		
					1- Rapid Test	for Hydrop	hytic Vegetatio	n
					2- Dominance			
	20	= Total Cover			3-Prevalence 4-Morphologi		3.0' ons ¹ (provide s	supporting
oody Vine Stratum (plot size:)						separate sheet	
					5- Wetland N		-	,
							Vegetation ¹ (E	xplain)
	0	= Total Cover		¹ Indicators of hydric soil a				
				disturbed or problematic.				
				Hydrophytic	N.	v	N.	
Bare Ground in Herb Stratum	10			Vegetation	Yes	Х	No	

SOIL			PHS #	6338	_		Sampling Point:	18
		the depth	needed to docume	nt the indicator or co	onfirm the abser	nce of indicators.)		
Depth	Matrix			Redox Features	Loc ²			
(Inches)	Color (moist)	%	Color (moist)	% Type ¹	LOC	Texture	Remarks	
0-18	10YR 2/1	100				Sandy Loam		
¹ Type: C=Con	centration, D=Deplet	ion, RM=R	educed Matrix, CS=	Covered or Coated Sa	nd Grains.		² Location: PL=Pore Lining, M=	Matrix.
Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwise noted	.)	Indic	ators for Problematic Hyd	ric Soils ³ :
	Histosol (A1)			Sandy Red	ox (S5)		2 cm Muck (A10)
	Histic Epipedon (A2))		Stripped M	atrix (S6)		Red Parent Mate	erial (TF2)
	Black Histic (A3)			Loamy Muo	cky Mineral (F1) (except MLRA 1)	Very Shallow Da	rk Surface (TF12)
	Hydrogen Sulfide (A	4)		Loamy Gle	yed Matrix (F2)		Other (explain in	Remarks)
	Depleted Below Dar	k Surface (J	A11)	Depleted M	latrix (F3)			
	Thick Dark Surface	(A12)		Redox Dar	k Surface (F6)			
	Sandy Mucky Minera				ark Surface (F7)		³ Indicators of hydrophytic vege	
	Sandy Gleyed Matrix				ressions (F8)		hydrology must be present, un problematic.	
	Layer (if present			'	(- /		•	
	Layer (in present	,.						
Type:								
Depth (inches	s).					Hydric Soil Pres	sent? Yes	No <u>X</u>
HYDROLO Wetland Hy	GY drology Indicato	rs:						
Primary Indi	cators (minimum	of one req	uired; check all t	nat apply)			Secondary Indicators (2 c	or more required)
	Surface Water (A1)			Water stair	ned Leaves (B9)	(Except MLRA	Water stained Le	eaves (B9)
	High Water Table (A	2)		1, 2, 4A, ar	nd 4B)		(MLRA1, 2, 4A,	and 4B)
	Saturation (A3)			Salt Crust	(B11)		Drainage Patterr	is (B10)
	Water Marks (B1)			Aquatic Inv	ertebrates (B13)		Dry-Season Wat	er Table (C2)
	Sediment Deposits (B2)		Hydrogen S	Sulfide Odor (C1))	Saturation Visible	e on Aerial Imagery (C9
	Drift Deposits (B3)			Oxidized R	hizospheres alon	ng Living Roots (C3)	Geomorphic Pos	ition (D2)
	Algal Mat or Crust (E	34)		Presence of	of Reduced Iron (C4)	Shallow Aquitard	(D3)
	Iron Deposits (B5)			Recent Iror	n Reduction in Pl	owed Soils (C6)	Fac-Neutral Test	(D5)
	Surface Soil Cracks	(B6)			Stressed Plants	(D1) (LRR A)		nds (D6) (LRR A)
	Inundation Visible or	n Aerial Ima	agery (B7)	Other (Exp	lain in Remarks)		Frost-Heave Hur	nmocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches):				
Water Table P	resent? Yes		No X	Depth (inches):	>18	Wetland Hyd	rology Present?	
Saturation Pre (includes capillar			No <u>X</u>	Depth (inches):	>18		Yes	No <u>X</u>
		auge, mon	itoring well, aerial pl	notos, previous inspec	tions), if available	e:		
			0 / 1		,,			
Remarks:								

v	VETLAND	DETER	RMINATIO		RM - Weste	rn Mounta	ains, Vall	eys, and	d Coast	PHS #	6338
roject/Site:	Palmber			City/County:		rhart/Clatso	·	•	ng Date:	•	/2018
pplicant/Owner:	Bill Palmb	erg					State:	OR	Sa	ampling Point:	19
vestigator(s):	SE/	JT/CM/C	R	Section, To	wnship, Range:		Section	10, Town	ship 6N, F	Range 10W	
andform (hillslope, t	terrace, etc.:)		Ditch	-	Local relief (cor	ncave, convex,	none):	·	•	Slope (%):	
ubregion (LRR):		LRR A	l l	Lat:	46.02	7	Long:	-123.	9059	Datum:	WGS84
oil Map Unit Name:	:		Gearhart Fi	ne Sandy Loa	m		-	ssification:		None	
re climatic/hydrolog		n the site ty			Yes	x		-		in Remarks)	
re vegetation		-	drology	-	urbed?	Are "Normal	-		-		
re vegetation	Soil	_	drology		matic? If needed				()		
5						, 1 ,		,			
UMMARY OF	FINDINGS	 Attac 	h site map	showing sar	npling point	locations,	transects	, importa	nt featur	es, etc.	
ydrophytic Vegetati	ion Present?	Yes	X No		Is Sampled Ar	ea within					
ydric Soil Present?		Yes	X No		a Wetlar		Yes	Х	No		
/etland Hydrology P	Present?	Yes	X No								
emarks:											
EGETATION -		tific nam		to.							
EGETATION -	- Use scien	unc nan	absolute	ts. Dominant	Indicator	Dominance	e Test wor	csheet:			
			% cover	Species?	Status			Shoot.			
ree Stratum (plot	t size:)				Number of De	ominant Spec	ies			
						That are OBL	, FACW, or F	AC:		1	(A)
			. <u> </u>								
						Total Numbe	r of Dominan	t			
1						Species Acro	ss All Strata:	_		1	(B)
			0	= Total Cover							
apling/Shrub Stratu	<u>um</u> (plot size	e:)			Percent of Do	ominant Spec	ies			
						That are OBL	, FACW, or	FAC:	10	0%	(A/B)
3						Prevalence					
			. <u> </u>			Total % Cove		N	Aultiply by:		
			0	= Total Cover		OBL Sp FACW s	-		x 1 = x 2 =	0	
						FACW S	·		x 2 – x 3 =	0	
erb Stratum (plot	t size:	5)				FACU S	-		x 4 =	0	
Carex sp.			70	X	(FAC)	UPL Sp	ecies		x 5 =	0	
Carex obnup	ta		5		OBL	Column	Totals	0 (/	A)	0	(B)
3											
1						Prevale	ence Index =E	3/A =	#DI	V/0!	
3 						Hydrophyt	-				
·										nytic Vegetatio	n
}			75	- Tet-LO					e Test is >50 e Index is ≤ 3		
			75	= Total Cover		-				ons ¹ (provide s	supportina
oody Vine Stratum) (plot size:)							separate sheet	
,			-						lon-Vascular	•	
2						_	F	Problematic I	Hydrophytic	Vegetation ¹ (E	xplain)
			0	= Total Cover			-	nd wetland h	ydrology mu	st be present,	unless
						disturbed or p					
6 Bare Ground in He	erh Stratum					Hydrophyt Vegetation		Yes	x	No	

Carex sp is found growing only in wetlands; not in adjoining upland.

SOIL			PHS #	6338	_		Sampling Point:	19
		-	needed to docume	ent the indicator or c	onfirm the abser	nce of indicators.)		
Depth	Matrix	%	Color (moint)	Redox Features % Type ¹	Loc ²	Texture	Demerica	
(Inches) 0-12	Color (moist) 10YR 2/1	 	Color (moist)	% Type		Texture	Remarks	
0-12	10TR 2/1	100				Loamy Sand		
		·						
		·						
		·						
		·						
				Covered or Coated Sa			² Location: PL=Pore Lining, M=Ma	
Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwise noted	d.)	Indic	ators for Problematic Hydric	Soils [°] :
	Histosol (A1)			Sandy Ree	dox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2	2)		Stripped M			Red Parent Material	(TF2)
	Black Histic (A3)			Loamy Mu	cky Mineral (F1) (except MLRA 1)	Very Shallow Dark S	Surface (TF12)
X	Hydrogen Sulfide (A	4)		Loamy Gle	eyed Matrix (F2)		Other (explain in Re	marks)
	Depleted Below Da	rk Surface (A11)	Depleted I	Matrix (F3)			
·	Thick Dark Surface	(A12)		Redox Da	rk Surface (F6)		3	
	Sandy Mucky Miner	al (S1)		Depleted [Dark Surface (F7)		³ Indicators of hydrophytic vegetati hydrology must be present, unles	
	Sandy Gleyed Matri	x (S4)		Redox De	pressions (F8)		problematic.	
Restrictive	Layer (if present	t):						
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes X N	0
Remarks:						-		
HYDROLO Wetland Hy	GY drology Indicato	ors:						
Primary India	cators (minimum	of one rec	luired; check all t	hat apply)			Secondary Indicators (2 or n	nore required)
X	Surface Water (A1)			Water stai	ned Leaves (B9)	(Except MLRA	Water stained Leave	es (B9)
Х	High Water Table (/	A2)		1, 2, 4A, a	nd 4B)		(MLRA1, 2, 4A, an	d 4B)
Х	Saturation (A3)			Salt Crust	(B11)		Drainage Patterns (B10)
	Water Marks (B1)			Aquatic In	vertebrates (B13)		Dry-Season Water	Γable (C2)
	Sediment Deposits	(B2)		Hydrogen	Sulfide Odor (C1)		Saturation Visible of	n Aerial Imagery (CS
	Drift Deposits (B3)			Oxidized F	Rhizospheres alon	g Living Roots (C3)	X Geomorphic Positio	n (D2)
,	Algal Mat or Crust (B4)		Presence	of Reduced Iron (C4)	Shallow Aquitard (D	3)
	Iron Deposits (B5)			Recent Iro	n Reduction in Ple	owed Soils (C6)	Fac-Neutral Test (D	5)
	Surface Soil Cracks	s (B6)			Stressed Plants	(D1) (LRR A)	Raised Ant Mounds	
	Inundation Visible o			Other (Exp	olain in Remarks)		Frost-Heave Humm	ocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes	X	No	Depth (inches):	4			
Water Table P	resent? Yes	X	No	Depth (inches):	0	Wetland Hyd	Irology Present?	
Saturation Pre (includes capillar		X	No	Depth (inches):	0		Yes <u>X</u> N	o
			itaring wall parial p	natao manjana inana	tions) if eveilable			
Describe Reco	ilded Dala (Silealli (yauge, mon	noning wen, aenai p	hotos, previous inspec	nons), il available			
Remarks:								

,	WETI ΔΝΓ		RMINA	ם מסוד		RM - Weste	rn Mount	ains Vall	evs a	nd Coas	PHS t Region		38
Project/Site:	Palmbe				ty/County:		rhart/Clatso		-	bling Date:	-	3/28/2018	
Applicant/Owner:	Bill Palmb		,	-	, ,			State:	-	-	Sampling P		20
nvestigator(s):		JT/CM/	CR		Section. To	wnship, Range:		-		-	, Range 10		
_andform (hillslope,					,	Local relief (co	ncave. convex.		,		Slope		
Subregion (LRR):	,	LRR	Α		Lat:	46.02		Long:	-12	3.9059		· · ·	S84
Soil Map Unit Name	<u> </u>			art Fine S	Sandy Loa		<u> </u>	-	ssification		PEM		<u></u>
Are climatic/hydrolo	-				-	Yes	x				ain in Rema		
Are vegetation					nificantly dist			Circumstanc		-		(10)	
-			lydrology			matic? If needed				IC? (1/IN)	<u> </u>		
re vegetation	Soil		iyurology				, explain any a		1101 KS.)				
SUMMARY OF	FINDINGS	– Atta	ch site n	nap sho	wing san	npling point	locations,	transects	, impor	tant feat	ures, etc.		
lydrophytic Vegeta	tion Present?	Yes	Х	No									
lydric Soil Present?	?	Yes		No	х	Is Sampled Ar a Wetlar		Yes			No X		
Vetland Hydrology	Present?	Yes		No	х			-		-			
Remarks:		-											
iomanto.													
/EGETATION	- Use scier	ntific na	mes of p	olants.									
			absolu		ominant	Indicator	Dominanc	e Test worl	ksheet:				
ree Stratum (plo	ot size:) <u>% cov</u>	er S	pecies?	Status	Number of D	ominant Sa-	sion				
<u>ee Suatum</u> (pio 1)					ominant Spec			1	(A)	
2							That are OBI	L, FACW, or F	AC:		I	(A)	
<u>-</u> 3							Total Numbo	r of Dominan					
1								oss All Strata:			1	(B)	
r			0	= T	otal Cover		Species Acit	55 Ali Stiata.				(D)	
apling/Shrub Strat	um (plot size	e:	_)					ominant Spec			4000/		
1							That are OBI	L, FACW, or	FAC:		100%	(A/B)	
2 3							Provalone	e Index Wo	rkeboot				
2 1							Total % Cove		riksneet				
5							OBL S			Multiply by x 1 =	<u> </u>		
			0	= T	otal Cover		FACW s	-		- x 2 =	0		
							FAC S	· _		x 3 =	0		
erb Stratum (plo	ot size:	5)				FACU S	-		x 4 =	0		
Unidentified	grass		90		х	(FAC)	UPL S	pecies		x 5 =	0		
2 Juncus effus	sus		10			FACW	Column	Totals	0	(A)	0	(B)	
3 Equisetum s	sp.		2			(FAC)							
4 Lotus cornic	culatus		1			FAC	Prevale	ence Index =E	8/A =	#	DIV/0!		
5													
<u> </u>							Hydrophyt	ic Vegetati					
									-	-	ophytic Vege	etation	
3										nce Test is >			
			103	= T	otal Cover					ce Index is : ogical Adapt		/ide supportir	na
/oody Vine Stratur	m (plot size:)				-				a separate s		.я
1										l Non-Vascu			
2							-				tic Vegetatio	n ¹ (Explain)	
			0	= T	otal Cover		¹ Indicators of	f hydric soil ar			-		
							disturbed or	-		, -3, -	F. 20	,	
							Hydrophyt						
% Bare Ground in ⊦							Vegetation		Yes	X		No	

Mowed and grazed. Unidentified species likely include Agrostis, Holcus lanatus, Alopecurus pratensis. Percent cover of Equiestum will increase as it matures.

SOIL			PHS #	6338	_		Sampling Point:	20
Profile Descri	ption: (Describe to	the depth	needed to docume	ent the indicator or c	onfirm the abser	ice of indicators.)		
Depth	Matrix			Redox Features			. .	
(Inches)	Color (moist)	%	Color (moist)	% Type'	Loc ²		Remarks	
0-6	7.5YR 2.5/2	100				Silt Loam	10% gravel	
6-11	10YR 3/3	100				Silt Loam		
11-16	2.5YR 3/3	93	10YR 3/4	<u>7</u> C	M	Fine Sand	Medium	
				Covered or Coated S			² Location: PL=Pore Lining, M=Ma	
Hydric Soil	Indicators: (Appli	icable to	all LRRs, unles	ss otherwise noted	d.)	Indic	cators for Problematic Hydric	Soils ³ :
	Histosol (A1)			Sandy Re	dox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped N	Matrix (S6)		Red Parent Material	(TF2)
	Black Histic (A3)			Loamy Mu	ucky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark S	ourface (TF12)
	Hydrogen Sulfide (A4	4)		Loamy Gl	leyed Matrix (F2)		Other (explain in Re	marks)
	Depleted Below Dark	-	A11)		Matrix (F3)			
	Thick Dark Surface (A		,		ark Surface (F6)			
	Sandy Mucky Mineral	-			Dark Surface (F7)		³ Indicators of hydrophytic vegetation	
	Sandy Gleyed Matrix				epressions (F8)		hydrology must be present, unles problematic.	s disturbed or
Restrictive I	Layer (if present):	:				T		
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes No	o X
Remarks:								
HYDROLO Wetland Hyd	OGY rdrology Indicator	's:						
Primary Indic	cators (minimum o	of one rec	uired; check all t	.hat apply)			Secondary Indicators (2 or m	ore required)
	Surface Water (A1) High Water Table (A2	2)		Water stai 1, 2, 4A, a	iined Leaves (B9) (and 4B)	Except MLRA	Water stained Leave (MLRA1, 2, 4A, and	()
	Saturation (A3)	-)		Salt Crust			Drainage Patterns (I	
	Water Marks (B1)				vertebrates (B13)		Dry-Season Water T	
	Sediment Deposits (E	B2)			Sulfide Odor (C1)		Saturation Visible or	. ,
	Drift Deposits (B3)	·_,			· · ·	, ng Living Roots (C3)	Geomorphic Position	
	Algal Mat or Crust (B4	4)			of Reduced Iron (Shallow Aquitard (D	
	Iron Deposits (B5)	+)			on Reduction in Plo		Fac-Neutral Test (D	,
	Surface Soil Cracks ((R6)			or Stressed Plants (Raised Ant Mounds	
	Inundation Visible on		rany (R7)		plain in Remarks)		Frost-Heave Humme	
	Sparsely Vegetated C				Jian in Komane,			
Field Obser						1		
Surface Water	r Present? Yes		No X	Depth (inches):				
Water Table P	Present? Yes	<u> </u>	No	Depth (inches):	17	Wetland Hyd	drology Present?	
Saturation Pres (includes capillar		<u>X</u>	No	Depth (inches):	15		YesN	o <u>X</u>
Describe Reco	orded Data (stream ga	auge, mon	itoring well, aerial p	hotos, previous inspec	ctions), if available			
-			..		,,			
Domorke:								
Remarks:								

,			RMINA	FION DATA FOI	RM - Weste	rn Mountai	ns Vall	evs and	Coast I	PHS #	6338
Project/Site:	Palmber			City/County:		rhart/Clatsop	no, van	Sampling		•	8/2018
Applicant/Owner:	Bill Palmb	• •	<u> </u>	-			State:			mpling Point:	21
nvestigator(s):	-	JT/CM/C	CR	Section, To	wnship, Range:		-			ange 10W	
andform (hillslope,						ncave, convex, no		., .	1	Slope (%):	
ubregion (LRR):	, , ,	LRR	A	Lat:	46.02		Long:	-123.9	059	Datum:	WGS84
oil Map Unit Name	e:			rt Fine Sandy Loar			-	sification:		PEMIC	
		on the site t		his time of year?	Yes	X	No			in Remarks)	
re vegetation	•			significantly dist		Are "Normal Ci		``	<i>,</i> ,	,	
re vegetation			ydrology			, explain any answ					
· ·			, ,,			, , ,		,			
SUMMARY OF	FINDINGS	- Attac	ch site n	nap showing san	pling point	locations, tra	ansects	, importaı	t featur	es, etc.	
lydrophytic Vegeta	ation Present?	Yes	Х	No	Is Sampled Ar	a within					
lydric Soil Present	?	Yes	Х	No	a Wetla		Yes	X	No		
Vetland Hydrology	Present?	Yes	Х	No							
Remarks:					1						
		41.61		1							
EGETATION	- Use scien	ntific na	mes of p absolu		Indicator	Dominance 1	Foet word	chaot:			
			% cov		Status	Dominance	lest work	(sneet:			
ree Stratum (pl	ot size:	30))			Number of Dom	inant Spec	ies			
Alnus rubra			20	<u> </u>	FAC	That are OBL, F	FACW, or F	AC:	e e	5	(A)
2											
3						Total Number o	f Dominant	İ			
4						Species Across	All Strata:		Į	5	(B)
			20	= Total Cover							
apling/Shrub Strat	tum (plot size	e: 10)			Percent of Dom	inant Spec	ies			
1 Rubus arme	eniacus		15	<u> </u>	FAC	That are OBL, F	ACW, or l	FAC:	10	0%	(A/B)
2 Alnus rubra			10	<u> </u>	FAC						
3						Prevalence I					
45						Total % Cover o		M	Itiply by:	0	
			25	= Total Cover		OBL Spec FACW spe	-		x 1 = x 2 =	0	
						FAC Spec	-		x 3 =	0	
erb Stratum (pl	ot size:	5))			FACU Spe	cies		x 4 =	0	
Unidentified	grass		65	<u> </u>	(FAC)	UPL Spec	ies		x 5 =	0	
2 Juncus effus	sus		25	<u> </u>	FACW	Column To	otals	0 (A)	0	(B)
B Equisetum s	sp.		10		(FAC)						
1						Prevalence	e Index =B	/A =	#DI	V/0!	
5						L hudu o n hu đi o	Vezeteti				
§						Hydrophytic	-			vitio Vogatati -	n
/ 3								- Rapid Test 2- Dominance		nytic Vegetatio	
·			100	= Total Cover				- Dominance 8-Prevalence			
										ons ¹ (provide s	supporting
loody Vine Stratur	m (plot size:)				d	lata in Remai	ks or on a s	separate sheet	.)
1							5	- Wetland No	n-Vascular	Plants ¹	
2						L —				Vegetation ¹ (E	
			0	= Total Cover		¹ Indicators of hy disturbed or pro		nd wetland hy	drology mus	st be present,	unless
						disturbed or pro	wernatic.				
	Laula Otractura		0			Vegetation		Yes	х	No	
% Bare Ground in ⊦	Herd Stratum		0	-		vegetation					

Equisetum will make up a much larger portion of cover when mature; plants are only 2 to 4 inches tall at this time.

SOIL								
Profile Descri Depth	iption: (Describe to Matrix	the depth	needed to docume		cator or conf Features	irm the abser	nce of indicators.)	
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/2	96	5YR 3/4	3	C	М	Loamy Sand	Fine
0-7			5YR 3/4	1	C	PL		OR's
7-12	10YR 2/1	97	7.5YR 2.5/3	3	c	M	Loamy Sand	
12-14	2.5YR 3/1	90	10YR 3/6	10	C	M	Sand	Medium
Type: C=Con	centration, D=Depleti	on, RM=Re	educed Matrix, CS=	Covered or	Coated Sand	l Grains.		² Location: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appl	icable to	all LRRs, unless	s otherwi	se noted.)		Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)				Sandy Redox	(S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				Stripped Matr			Red Parent Material (TF2)
	Black Histic (A3)						except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4)		l	oamy Gleye	d Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	-	A11)		Depleted Mat			
	Thick Dark Surface (,			Redox Dark S			³ Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera					k Surface (F7)		hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)		F	Redox Depre	ssions (F8)	-	problematic.
Restrictive	Layer (if present)	:						
Гуре:					-			
Depth (inches	s):						Hydric Soil Pres	sent? Yes <u>X</u> No
Depth (inches Remarks:	DGY				-		Hydric Soil Pres	sent? Yes <u>X</u> No
Depth (inches Remarks: HYDROLO Wetland Hy	IGY drology Indicator		uired: check all th	not applu)	-		Hydric Soil Pres	
Depth (inches Remarks: HYDROLO Wetland Hy Primary Indi	OGY drology Indicator cators (minimum c		uired; check all th		- - Water stained	1 Leaves (B9)		Secondary Indicators (2 or more required)
Depth (inches Remarks: HYDROLO Vetland Hy Primary Indi	OGY drology Indicator cators (minimum c Surface Water (A1)	of one req	uired; check all th	\	- - Water stained		Hydric Soil Pres	
Appendix (inchest Remarks: HYDROLO Vetland Hy Primary Indi X	OGY drology Indicator cators (minimum c	of one req	juired; check all th	\ 1		4B)		Secondary Indicators (2 or more required) Water stained Leaves (B9)
Pepth (inches Remarks: HYDROLO Vetland Hy Primary Indi X X	OGY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A	of one req	uired; check all th	1 	I, 2, 4A, and Salt Crust (B [*]	4B)	(Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Appendix (inches) Remarks: AYDROLO Netland Hy Primary Indi X X	DGY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A Saturation (A3)	of one req 2)	uired; check all th	1	I, 2, 4A, and Salt Crust (B [*] Aquatic Invert	4B) 11)	(Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indi	DGY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1)	of one req 2)	uired; check all th	1 5 F	I, 2, 4A, and Salt Crust (B ⁷ Aquatic Inver Hydrogen Sul	4B) 11) tebrates (B13) ifide Odor (C1	(Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Arman Arma Arman Arman Arm Arman Arman br>Arman Arman	OGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (I	of one req 2) B2)	uired; check all th		I, 2, 4A, and Salt Crust (B [*] Aquatic Invert Hydrogen Sul Oxidized Rhiz	4B) 11) tebrates (B13) ifide Odor (C1	(Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (
Appendix (inches) Remarks: HYDROLO Netland Hy Primary Indi X X X	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A1) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	of one req 2) B2)	juired; check all th		I, 2, 4A, and Salt Crust (B ⁻ Aquatic Inver Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F	4B) 11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
HYDROLO Remarks: HYDROLO Wetland Hy Primary Indi X X	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks	of one req 2) B2) 4) (B6)			I, 2, 4A, and Salt Crust (B ² Aquatic Inver Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St	4B) (11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl ressed Plants	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Pepth (inches Remarks: HYDROLO Vetland Hy Primary Indi X X	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on	of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		I, 2, 4A, and Salt Crust (B ² Aquatic Inver Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St	4B) 11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
Arman Arma Arman Arman Arm Arman Arman br>Arman Arman	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated (of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		I, 2, 4A, and Salt Crust (B ² Aquatic Inver Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St	4B) (11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl ressed Plants	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Pepth (inches Remarks: HYDROLO Wetland Hy Primary Indi X X X	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated (vations:	of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7)		I, 2, 4A, and Salt Crust (B ² Aquatic Inveri Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St Dther (Explai	4B) (11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl ressed Plants	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Depth (inches Remarks: HYDROLO Wetland Hy Primary India X X X Field Obser	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks Inundation Visible on Sparsely Vegetated of vations: Present? Yes	of one req 2) B2) 4) (B6) Aerial Ima	ıgery (B7) urface (B8)	f	I, 2, 4A, and Salt Crust (B ² Aquatic Inver Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St	4B) (11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl ressed Plants	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Argent (inches Remarks: HYDROLO Wetland Hy Primary Indi X X X Surface Water Surface Water Vater Table P Saturation Pre	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated of vations: Present? Yes resent? Yes	of one req 2) B2) 4) (B6) Aerial Ima Concave S	igery (B7) urface (B8) No <u>X</u>	h	I, 2, 4A, and Salt Crust (B ² Aquatic Inveri Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or St Dther (Explain Dther (Explain inches):	4B) (11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in Pl ressed Plants n in Remarks)	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Appendix (inchest Remarks: HYDROLO Wetland Hy Primary India X X X Field Obser Surface Water Nater Table P Saturation Pre includes capilla	DGY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated of vations: Present? Yes resent? Yes	of one req 2) B2) 4) (B6) Aerial Ima Concave S	ngery (B7) urface (B8) No <u>X</u> No <u>No</u>	f	I, 2, 4A, and Salt Crust (B' Aquatic Inveri Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St Dther (Explai inches): inches):	4B) 11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in PI ressed Plants n in Remarks) 8 5	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary India	DGY drology Indicator Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated (Crvations: Present? Yes Present? Yes Sent? Yes Sent? Yes	of one req 2) B2) 4) (B6) Aerial Ima Concave S	ngery (B7) urface (B8) No <u>X</u> No <u>No</u>	f	I, 2, 4A, and Salt Crust (B' Aquatic Inveri Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St Dther (Explai inches): inches):	4B) 11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in PI ressed Plants n in Remarks) 8 5	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Field Obser Surface Water Vater Table P Saturation Pre includes capilla	DGY drology Indicator Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks of Inundation Visible on Sparsely Vegetated (Crvations: Present? Yes Present? Yes Sent? Yes Sent? Yes	of one req 2) B2) 4) (B6) Aerial Ima Concave S	ngery (B7) urface (B8) No <u>X</u> No <u>No</u>	f	I, 2, 4A, and Salt Crust (B' Aquatic Inveri Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron F Stunted or St Dther (Explai inches): inches):	4B) 11) tebrates (B13) fide Odor (C1) cospheres alor Reduced Iron (Reduction in PI ressed Plants n in Remarks) 8 5	(Except MLRA) ng Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

6338	PHS #	s, and Coast	ains, Valleys, a	rn Mount	RM - Weste		RMINATION	LAND DET	WETLAN
/2018	-	Sampling Date:		rhart/Clatso		City/County:		almberg Prop	
22	Sampling Point:		State: OR					Palmberg	plicant/Owner: Bill Palm
	, Range 10W	Township 6N, I	Section 10, To		wnship, Range:	Section, To	CR	SE/JT/CM	vestigator(s): SI
	Slope (%):	Convex	none):	ncave, convex,	Local relief (co	-	Flats	e, etc.:)	ndform (hillslope, terrace, etc.:)
WGS84	Datum:	-123.9063	Long: -1	67	46.02	Lat:	Α	LRR	bregion (LRR):
	PEMIC	ation:	NWI Classificatio		n	- ne Sandy Loai	Gearhart Fi		il Map Unit Name:
	ain in Remarks)	(if no, explair	No	х	Yes	e of year?	typical for this tim	ditions on the site	e climatic/hydrologic conditions
	Y	present? (Y/N)	I Circumstances" pres	Are "Norma	urbed?	significantly dist	łydrology	oil or l	e vegetation Soil
		s.)	nswers in Remarks.)	, explain any a	natic? If needed	naturally probler	lydrology	oil or l	e vegetation Soil
						-			
	ures, etc.	portant featur	transects, impo	locations,	npling point	showing san	ch site map	DINGS – Atta	UMMARY OF FINDING
				ea within	Is Sampled Ar		X No	sent? Yes	drophytic Vegetation Present?
	No X	No	Yes		a Wetlar		X No	Yes	dric Soil Present?
						X	No	? Yes	etland Hydrology Present?
									emarks:
						e	mos of plant	sciontific -	EGETATION - Use scie
		eet:	e Test worksheet	Dominanc	Indicator	s. Dominant	absolute	SCIENTING N	EGETATION - USE SCIE
					Status	Species?	% cover		
			ominant Species	Number of D)		ee Stratum(plot size:
(A)	1		L, FACW, or FAC:	That are OB					
			er of Dominant						
(B)	1		oss All Strata:	Species Acro					
						= Total Cover	0		
			ominant Species)	plot size:	pling/Shrub Stratum (plot siz
(A/B)	100%	: 10	L, FACW, or FAC:	That are OB					
				<u> </u>					
			e Index Workshee						
	<u> </u>	Multiply by: x 1 =		Total % Cov OBL S			·		
	0	x 2 =		FACW		= Total Cover	0		
	0	x 3 =	· · · · · · · · · · · · · · · · · · ·	FAC S					
	0	x 4 =	Species	FACU S)	5	erb Stratum (plot size:
	0	x 5 =	pecies	UPL S	(FAC)	X	90		Poa sp.
(B)	0	0 (A)	Totals 0	Column	FACW		10		Juncus effusus
	DIV/0!	#D	ence Index =B/A =	Preval					
		ndicatoro	tic Vegetation Ind	Ludron bid					
n	onhytic Vecatation	ndicators: apid Test for Hydrop		nyuropiiyi					
		più Test for Hydrop ominance Test is >5					·		
		evalence Index is ≤ 3				= Total Cover	100		
upporting		rphological Adaptat							
)	•	in Remarks or on a)	ot size:	oody Vine Stratum (plot size:
		etland Non-Vascula							
		ematic Hydrophytic							
unless	must be present, u	etland hydrology mu	f hydric soil and wetlar			= Total Cover	0		
			•	disturbed or Hydrophyt					
							•		
	No	Yes X	n Y€	Vegetation			0	atum	Bare Ground in Herb Stratum

SOIL			PHS #	63	38			Sampling Point: 22
	ption: (Describe to	the depth	needed to docume			nfirm the absen	ce of indicators.)	
Depth	Matrix				Features	1 2		5
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/1	100					Loamy Sand	
4-16	10YR 3/1	98	5YR 3/4	2	C	M	Loamy Sand	
16-24	10YR 4/2	50	10YR 3/6	50	C	M	Loamy Sand	
								·
·								
¹ Type: C=Cond	centration, D=Deplet	ion, RM=R	educed Matrix, CS=	Covered or	Coated San	id Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwi	se noted.))	Indic	ators for Problematic Hydric Soils ³ :
 	Histosol (A1)				Sandy Redo	ox (S5)		2 cm Muck (A10)
I	Histic Epipedon (A2)	1			Stripped Ma	trix (S6)		Red Parent Material (TF2)
I	Black Histic (A3)			l	_oamy Mucł	ky Mineral (F1) (except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A	4)		l	_oamy Gley	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Darl	< Surface (A11)		Depleted Ma	atrix (F3)		
	Thick Dark Surface (A12)		X	Redox Dark	Surface (F6)		
	Sandy Mucky Minera					ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix				-	essions (F8)		hydrology must be present, unless disturbed or problematic.
Restrictive I	Layer (if present)):						· · · · · · · · · · · · · · · · · · ·
Type:								
Depth (inches	.)·				-		Hydric Soil Pre	sent? Yes X No
Remarks:	·/·				-			
HYDROLO	GY							
Wetland Hy	drology Indicato	rs:						
Primary Indic	cators (minimum o	of one rec	uired; check all tl	nat apply)				Secondary Indicators (2 or more required)
:	Surface Water (A1)					ed Leaves (B9) (Except MLRA	Water stained Leaves (B9)
I	High Water Table (A	2)		1	1, 2, 4A, and	d 4B)		(MLRA1, 2, 4A, and 4B)
:	Saturation (A3)				Salt Crust (E	311)		Drainage Patterns (B10)
	Water Marks (B1)			/	Aquatic Inve	ertebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (B2)		I	Hydrogen Si	ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9
I	Drift Deposits (B3)			0	Oxidized Rh	izospheres alon	g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B	34)		F	Presence of	Reduced Iron (C4)	Shallow Aquitard (D3)
I	lron Deposits (B5)			F	Recent Iron	Reduction in Plo	owed Soils (C6)	Fac-Neutral Test (D5)
;	Surface Soil Cracks	(B6)			Stunted or S	Stressed Plants ((D1) (LRR A)	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible or	n Aerial Ima	agery (B7)	0	Other (Expla	ain in Remarks)		Frost-Heave Hummocks (D7)
:	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches):			
Water Table P	resent? Yes		No X		inches):	>24	Wetland Hyd	drology Present?
Saturation Pres	sent? Yes	X	No		(inches):	16		Yes NoX
(includes capillar	rded Data (stream g	auge mon	itoring well aerial of	notos previo	ous inspectiv	ons), if available	 	
December 1000	laod Bala (bilodin g	augo, mon	toning tron, aonar pr	iotoo, provid		ono), il avallabio		
Remarks:								
Saturation i	s likely from wat	er infiltra	ation being delay	ed by har	rd packed	sand at dept	th. It is not asso	ciated with a water table within 24 inches.

	WETLAND	DETER	MINATIC	ON DATA FOR	RM - Weste	rn Mountai	ns, Valle	ys, and	Coast F	PHS # Region	6338
roject/Site:	Palmberg	g Property	у	City/County:	Gea	rhart/Clatsop		Sampling	Date:	3/28	/2018
oplicant/Owner:	Bill Palmbe	erg					State:	OR	Sa	mpling Point:	23
vestigator(s):	SE/	JT/CM/CR	र	Section, To	wnship, Range:		Section 1	0, Townsh	nip 6N, R	ange 10W	
ndform (hillslope	e, terrace, etc.:)	S	ubtle Depi	ression	Local relief (co	ncave, convex, no	ne):			Slope (%):	
bregion (LRR):		LRR A		Lat:	46.02	67	Long:	-123.90)63	Datum:	WGS8
oil Map Unit Nam	ne:		Gearhart	— Fine Sandy Loar	n		NWI Classi	fication:		PEMIC	
	ogic conditions or				Yes	x				in Remarks)	
e vegetation	Soil	or Hydi	rology	significantly dist	urbed?	Are "Normal Ci	rcumstances	" present? (Y/N)	Ŷ	
e vegetation		_		naturally problem					· · ·		
<u> </u>		_						,			
UMMARY O	F FINDINGS	– Attach	ı site map	o showing sam	pling point	locations, tra	ansects, i	mportan	t feature	es, etc.	
drophytic Veget	ation Present?	Yes	XN	lo	Is Sampled Ar	ea within					
ydric Soil Present	t?	Yes	XN	lo	a Wetla		Yes	Х	No		
etland Hydrology	y Present?	Yes	XN	lo							
emarks:											
	I - Use scient	uric nam	absolute	Dominant	Indicator	Dominance 1	Fest works	heet:			
			% cover	Species?	Status	Dominance	iest works	neet.			
ee Stratum (p	olot size:)				Number of Dom	iinant Specie	s			
				<u> </u>		That are OBL, F	ACW, or FA	C:	2		(A)
				<u></u>							
3				<u></u>		Total Number o	f Dominant				
						Species Across	All Strata:		2		(B)
		-	0	= Total Cover							
apling/Shrub Stra	atum (plot size	:)			Percent of Dom	inant Specie	S			
				<u></u>		That are OBL, F	ACW, or FA	AC:	100	1%	(A/B)
}						Prevalence I					
						Total % Cover o		Mu	Itiply by:	•	
			0	= Total Cover		OBL Spec FACW spe			x 1 = x 2 =	0	
		-				FACW spectrum FAC Spectrum			x 2 = x 3 =	0	
erb Stratum (p	olot size:	5)				FACU Spe			x 4 =	0	
Unidentified	d grass		70	x	(FAC)	UPL Spec	ies		x 5 =	0	
Juncus effu	isus		30	X	FACW	Column To	otals	0 (A)		0	(B)
3											
				<u></u>		Prevalenc	e Index =B/A		#DI\	//0!	
						Hydrophytic	•				
·				- <u> </u>				-		ytic Vegetatio	n
			400	- Tet-1 0				Dominance ⁻ Prevalence Ir			
		-	100	= Total Cover						u [.] ns ¹ (provide s	upportina
oody Vine Stratu	um (plot size:)							eparate sheet	
								Wetland Nor			-
2		•					Pro	blematic Hy	drophytic V	/egetation ¹ (E	xplain)
			0	= Total Cover		¹ Indicators of hy		wetland hyd	rology mus	t be present,	unless
		-		-		disturbed or pro	blematic.				
Bare Ground in	Herh Stratum	0)			Hydrophytic Vegetation		Yes	х	No	

Profile Decide to the depth needed to document the indicator or confirm the absence of indicators.) Many Rearrism Many Rearrism Colst model No Colst model Rearrism Profile Decide Target Rearrism Rearrism Profile Decide Target Rearrism Rearrism Profile Decide Target Rearrism Rearrism Rearrism Rearrism Profile Decide Decide Target Colspan="2">Rearrism Rearrism Rearrism Rearrism Type: Colspan="2">Colspan="2">Colspan="2">Model Target Rearrism Rearrism Colspan="2">Rearrism Rearrism Rearrism Rearrism Rearrism <th colspa<="" th=""><th>SOIL</th><th></th><th></th><th>PHS #</th><th>6</th><th>338</th><th></th><th></th><th>Sampling Point: 23</th></th>	<th>SOIL</th> <th></th> <th></th> <th>PHS #</th> <th>6</th> <th>338</th> <th></th> <th></th> <th>Sampling Point: 23</th>	SOIL			PHS #	6	338			Sampling Point: 23
Interve Cost (mest) % Cost (mest) % Testure Remains 0-7 10YR 2/2 94 5YR 24 1 C M Sandy Laam Fine	Profile Descri	otion: (Describe to t	the depth	needed to docume	nt the ind	licator or cor	nfirm the absen	ce of indicators.)		
6.7 10/R 22 64 5/R 2, 6/R 34 1 C M Sandy Leam Fine 0.7 7.7 7.7/R 2, 6/R 34 1 C M Leamy Sand Medium 11-15 10/R 22 9 7.64/R 3/4 10 C M Leamy Sand Medium 15-17 10/R 32 60 7.78/R 2.6/R 3/4 10 C M Leamy Sand Medium 15-17 10/R 32 60 7.78/R 2.6/R 3/4 10 C M Leamy Sand Medium 15-17 10/R 32 60 7.78/R 2.6/R 3/4 10 C M Leamy Sand Medium Mediu	Depth	Matrix				1	2			
0.7 7.5YR 2.63 5 C M Learny Sand Medium 11-15 10YR 21 98 7.5YR 2.63 2 C M Learny Sand Medium 15-17 10YR 32 40 C M Learny Sand Medium Medium 15-17 10YR 32 40 C M Learny Sand Medium	(Inches)	Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks	
7-11 10YR 2/1 96 7.5YR 2.5/3 2 C M Loamy Sand Medium 11-15 10YR 2/2 90 7.5YR 3/4 10 C M Loamy Sand Medium 15-17 10YR 3/2 40 C M Loamy Sand Medium 15-17 10YR 3/2 40 C M Loamy Sand Medium 15-17 10YR 3/2 40 C M Loamy Sand Medium 15-17 10YR 3/2 40 C Medium Medium Medium 11/15/17 10YR 3/2 40 C Medium Medium Medium 11/15/16 Middeators<(Applicable to all LRs, unless otherwise noted \	0-7	10YR 2/2	94	5YR 3/4	1	<u> </u>	М	Sandy Loam	Fine	
11-15 10YR 2/2 90 7.54YR 3/4 10 C M Learry Sand Medium 15-17 10YR 3/2 40	0-7			7.5YR 2.5/3	5					
15-17 10YR 3/3 50 7.5YR 3/4 10 C M Loamy Sand Medium-Fine 15-17 10YR 3/2 40	7-11	10YR 2/1	98	7.5YR 2.5/3	2	C	М	Loamy Sand	Fine	
15-17 10YR 3/2 40	11-15	10YR 2/2	90	7.54YR 3/4	10	C	M	Loamy Sand	Medium	
"Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Couvered or Costert Sand Grains. *Location PL-Pore Lining, M-Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histooi (A1) Sindy Redox (S9)	15-17	10YR 3/3	50	7.5YR 3/4	10	C	М	Loamy Sand	Medium-Fine	
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ² : Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Black Histic (A3) Loarry Kloped Matrix (S6) Red Patert Material (T7) Oppleted Below Dark Surface (A11) Depleted Matrix (F3) Other (explain in Remarks) Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Restrictive Layer (If present): Type: Hydric Soil Present? Yes X No	15-17	10YR 3/2	40					Loamy Sand		
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ² : Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Black Histic (A3) Loarry Kloped Matrix (S6) Red Patert Material (T7) Oppleted Below Dark Surface (A11) Depleted Matrix (F3) Other (explain in Remarks) Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Restrictive Layer (If present): Type: Hydric Soil Present? Yes X No										
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ² : Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S6) 2 cm Muck (A10) Black Histic (A3) Loarry Kloped Matrix (S6) Red Patert Material (T7) Oppleted Below Dark Surface (A11) Depleted Matrix (F3) Other (explain in Remarks) Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) "Indicators of hydrophytic regetation and wetland hydrology must be present; unless disturbed or problematic. Restrictive Layer (If present): Type: Hydric Soil Present? Yes X No										
Histosi (A1) Sandy Redox (S5) 2 cm Mack (A10) Histo Expected (A2) Stripped Matrix (S5) Red Parent Material (TF2) Bisk Histo (A3) Lamry Biolog Matrix (F2) Other (copian in Remarks) Depleted Biolog Datified (A4) Lamry Biolog Matrix (F2) Other (copian in Remarks) Depleted Biolog Datified (A4) Depleted Dark Surface (F12) Thick Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F12) Thick Dark Surface (A11) Depleted Matrix (F3) Depleted Dark Surface (F7) Indicators of hydrophylic vegetation and wetfand hydroigy metation and wetfand hydroigy indicators (A11) Thick Dark Surface (F7) Type: Hydric Soil Present? Yes X No Bepth (inches): Hydric Soil Present? Yes X No Startace Water (A11) Saturation (A13) Saturation (A3) Saturation (A3) Surface Water (A11) Saturation (A3) Saturation (A3) Saturation (A41) Dranage Patterns (B10) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A41)									•	
Histic Epipedin (A2) Stripped Matrx (S6) Ref Parent Material (TF2) Black Histic (A3) Lamy Maxix (Minfrid (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hypogen Suffic (A4) Lamy Maxix (Minfrid (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Opeleted Below Dark Surface (A11) Depleted Matrix (F3) "Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or proteind unless of surface (F7) Sandy Gloged Mink (S4) Redox Depressions (F8) "Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or proteind unless of surface (F8) Remarka: Depleted Matrix (F3) Thick Bark Surface (T7) Type::	Hydric Soil I	ndicators: (Appli	cable to	all LRRs, unless	s otherw	vise noted.))	Indic	ators for Problematic Hydric Soils':	
Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Hydrogen Suffac (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Other (explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) "Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Sandy Gloged Matrix (S4) Redxx Dark Surface (F7) "Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If present): Type:	ŀ	listosol (A1)				Sandy Redo	ox (S5)		2 cm Muck (A10)	
Hydrogen Sulida (A4) Learry Gloyed Matrix (F2) Other (explain in Remarks) Depleted Belew Dark Surface (A12) X Redox Dark Surface (F6) "indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic." Sandy Macky Minoral (S1) Depleted Dark Surface (F7) "indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic." Restrictive Layer (if present): Type:	H	listic Epipedon (A2)				Stripped Mat	trix (S6)		Red Parent Material (TF2)	
Image: state in the state	E	Black Histic (A3)				Loamy Muck	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)	
Image: Secondary Indicators (A12) X Redox Dark Surface (F2) ³ Indicators of hydrophytic vegetation and wetland hydrology mast be present, unless disturbed or problematic. Restrictive Layer (if present):	H	lydrogen Sulfide (A4	•)			Loamy Gleye	ed Matrix (F2)		Other (explain in Remarks)	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) ¹¹ Indicators of hytrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:	[Depleted Below Dark	Surface ((A11)		Depleted Ma	atrix (F3)			
		hick Dark Surface (A12)		х	- Redox Dark	Surface (F6)			
		andy Mucky Minera	l (S1)			- Depleted Da	ark Surface (F7)			
Type:		Sandy Gleyed Matrix	(S4)			- Redox Depr	essions (F8)			
Type:	Restrictive L	aver (if present)								
Depth (inches): Hydric Soil Present? Yes X No Remarks: 3/2 at depth may be a reduction of the 3/3 soils. Hydric Soil Present? Yes X No Metranks: 3/2 at depth may be a reduction of the 3/3 soils. Hydric Soil Present? Yes X No Metranks: Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Matter State Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Mydrace Water (A1) Water stained Leaves (B13) Drainage Patterns (B10) Staturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Table (A2) 4, 4, 4, 44B Mydrace Water Table (A2) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Staturation (A3) Salt Crust (B11) Drainage Patterns (B10) Saturation Prostin (D2) Saturation Prostin (D2) Saturation Prostin (D2) Saturation (D2) Saturation Prostin (D2) Saturation Prostin (D2) Saturation Prostend Soils (C6) X		, ,								
Remarks: 3/2 at depth may be a reduction of the 3/3 soils. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) Water stained Leaves (B1) Saturation (A3) Sati Crust (B1) Drainage Patems (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D1ft Deposits (B3) Orift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitar (D3) Raised Ant Mounds (D6) (LRR A) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Water Present? Yes X No Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Yes X No Centrie	• ·					_				
3/2 at depth may be a reduction of the 3/3 soils. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) Water stained Leaves (B9) Water stained Leaves (B9) Saturation (A3) Saturation (A3) Saturation (A1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (B7) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Involution Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 10 Yes No Saturation Present? Yes X No Depth (inches): 10 Yes X No Saturation Present? Yes X No Depth (inches): 10 <td< td=""><td>Depth (inches</td><td>):</td><td></td><td></td><td></td><td></td><td></td><td>Hydric Soil Pre</td><td>sent? Yes <u>X</u>NO</td></td<>	Depth (inches):						Hydric Soil Pre	sent? Yes <u>X</u> NO	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA High Water Table (A2) 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Dirit Deposits (B2) Hydrogen Sulfide Odor (C1) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Surface Water Present? Yes Water Table Present? No Water Table Present? Yes Saturation Present? Yes Water Table Present? Yes Water Table Present? Yes X Depth (inches)	HYDROLO	GY								
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) Water stained Leaves (B9) Saturation (A3) Saturation (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Suffide Odor (C1) Saturation Visible on Aerial Imagery (Dirit Deposits (B3) Oxifized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitar (D3) Surface Soil Cracks (B6) Stunet on Stessed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Surface Water Present? Yes X Depth (inches): 10 Surface Water Present? Yes X No Depth (inches): 8 Vestartion Present? Yes X No Prepth (inches): 10 Surface Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes X No			s:							
Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Depth (inches): Mo No Sturation Present? Yes X No Depth (inches): Yes X No Saturation Present? Yes X No Depth (inches): 8 Yes X No Bescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Yes X No	-					۵				
High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) Saturation (A3) Satt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Solis (C6) X Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Sturte (inches): 10 Field Observations: No Depth (inches): 10 Saturation Present? Yes X No Yes No Saturation Present? Yes X No Yes No		,	t one rec	quired; check all tr	lat apply	· /		Free and MI DA		
Inight Value Table (PC) Saturation (A3) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stuned or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Present? Yes X No Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Yes X No Depth (includes capillary fringe) No Depth (inches): 8 Yes X No		. ,	2)			_	. , .	Except MLRA		
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Present? Yes X No Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks: Yes X No		. .	2)				-			
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Surface Water Present? Yes X No Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Vindude capillary fringe) No Depth (inches): 8 Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:						-				
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) X Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) Yes X Other (Explain in Remarks) Field Observations: Surface Water Present? Yes X Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Cincludes capillary fringe) Depth (inches): 8 Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:							. ,			
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Pepth (inches): 10 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 8 Yes X No Saturation Present? Yes X No Depth (inches): 8 Yes X No Depts (includes capillary fringe) Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:			32)							
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) No X Depth (inches): Frost-Heave Hummocks (D7) Field Observations: Surface Water Present? Yes X No Depth (inches): 10 Water Table Present? Yes X No Depth (inches): 8 Yes X No Saturation Present? Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:						_	•			
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) No X Depth (inches): Total Surface Water Present? Yes X No Depth (inches): 10 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:			4)			_				
Inundation Visible on Aerial Imagery (B7) X Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): Image: Concerve Surface (B8) Field Observations: Surface Water Present? Yes No X Depth (inches): Image: Concerve Surface (B8) Water Table Present? Yes X No Depth (inches): Image: Concerve Surface (B8) Saturation Present? Yes X No Depth (inches): Image: Concerve Surface (B8) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:		,								
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No X No Depth (inches): 10 Wetland Hydrology Present? Yes X Saturation Present? Yes X Yes X No Depth (inches): 10 Yes Saturation Present? Yes X No Depth (inches): 8 Yes Yes X No Yes Saturation Present? Yes Yes X No Yes Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						_		D1) (LRR A)		
Field Observations: Surface Water Present? Yes No X Depth (inches): 10 Wetland Hydrology Present? Water Table Present? Yes X No Depth (inches): 10 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 8 Yes X No Cincludes capillary fringe) Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks:					<u>X</u>	Other (Expla	ain in Remarks)		Frost-Heave Hummocks (D7)	
Surface Water Present? Yes No X Depth (inches): 10 Wetland Hydrology Present? Water Table Present? Yes X No Depth (inches): 10 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 8 Yes X No Saturation Present? Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks: Summary from the second secon	`	sparsely vegetated C	Joncave S	sufface (B8)						
Water Table Present? Yes X No Depth (inches): 10 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 8 Yes X No Cincludes capillary fringe) Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks: Status in the status inspection in the status in the status in the status inspection in the status in the sta	Field Observ	vations:								
Saturation Present? Yes X No Depth (inches): 8 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Remarks: Remarks:	Surface Water	Present? Yes		No <u>X</u>	Depth	ו (inches):				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Pr	esent? Yes	X	No	Depth	ו (inches):	10	Wetland Hyd	Irology Present?	
Remarks:			X	No	Depth	ו (inches): •	8		Yes X No	
Remarks:	Describe Reco	ded Data (stream ga	auge, mor	nitoring well, aerial ph	otos, prev	vious inspectio	ons), if available			
	2000112011000	aou Daia (or oan ge		niening tren, dendi pri	otoo, p. o.	noue nepeet	onoj, n'aranabio			
	Pomarka									
		stabilized in nit a	t 10 inc	has but is baliav	ed to be	o sittina on	confining lay	ver below that sl	ows infiltration	
	Water level .		t to me	nes, but is believ		, sitting on	comming la			

		DETEE			DM Wosto	ern Mountair	ac Vall		d Coast	PHS #	6338
Project/Site:						rhart/Clatsop	15, Vali	•		•	28/2018
Applicant/Owner:	Palmber Bill Palmb		<u>ty</u>	City/County:	Gea	iniar // Clatsop	State:	OR	ling Date:	Sampling Poin	
Investigator(s):		JT/CM/C	D	Section To	wnship, Range:					Range 10W	
Landform (hillslope		3 1/CI W /CI	N.			ncave, convex, no		10, 100		Slope (%	
Subregion (LRR):	e, lendee, ele)	LRR A		Lat:	46.02		Long:	-123	3.9073	Datum	
Soil Map Unit Nam				 .oamy Fine Sa		01	-	ssification:		 None	
Are climatic/hydrolo				-	Yes	x	No	•		n in Remarks)
	0					Are "Normal Cir			、)
Are vegetation		_ `	drology drology	-		I, explain any answ		•	(1/IN)		_
Are vegetation	Soil					i, explain any answ		nai ks.)			
SUMMARY O	F FINDINGS	 Attac 	h site map	showing san	npling point	locations, tra	ansects	, import	ant featu	res, etc.	
Hydrophytic Vegeta	ation Present?	Yes	X No								
Hydric Soil Present	ıt?	Yes	No	X	Is Sampled Ar a Wetlar		Yes		N	o <u>X</u>	_
Wetland Hydrology	y Present?	Yes	No	Х							
Remarks:											
Sample point is	s just west of	delineate	d wetland be	oundary.							
VEGETATION	I - Use scien	tific nan				1					
			absolute % cover	Dominant Species?	Indicator Status	Dominance T	est worl	ksheet:			
Tree Stratum (pl	olot size:)				Number of Dom	inant Spec	cies			
1						That are OBL, F	-			2	(A)
2											_ ` `
3						Total Number of	Dominant	t			
4						Species Across	All Strata:			2	(B)
			0	= Total Cover							
Sapling/Shrub Stra	atum (plot size	:)			Percent of Domi	inant Spec	ies			
1						That are OBL, F	ACW, or	FAC:	1	00%	(A/B)
2											
3						Prevalence Ir	ndex Wo	rksheet:			
4						Total % Cover o			Multiply by:	_	
5						OBL Spec			x 1 =	0	_
			0	= Total Cover		FACW spe FAC Spec	-		x 2 = x 3 =	0	_
Herb Stratum (p	olot size:	5)				FACU Spe	-		x 4 =	0	_
1 Phalaris aru	undinacea		60	х	FACW	UPL Spec	ies		x 5 =	0	_
2 Unidentified	d grass		30	Х	(FAC)	Column To	tals	0	(A)	0	(B)
3 Juncus effu	isus		10		FACW						
4 Rumex cris	pus		1		FAC	Prevalence	e Index =B	3/A =	#D	0IV/0!	_
5											
6						Hydrophytic	-				
7										ohytic Vegetat	ion
8			404	- Tatal Oaver					ice Test is >5 ce Index is ≤		
			101	= Total Cover						3.0 tions ¹ (provide	e supporting
Woody Vine Stratu	<u>um</u> (plot size:)							separate she	
1			-						Non-Vascula	-	
2							F	Problematio	Hydrophytic	Vegetation ¹	(Explain)
			0	= Total Cover		¹ Indicators of hy		nd wetland	hydrology m	ust be presen	t, unless
			_			disturbed or prol	blematic.				
						Ludronh + -					
% Bare Ground in I	Herb Stratum					Hydrophytic Vegetation		Yes	х	N	D

SOIL			PHS #	6338			Sampling Poi	nt: 24
	• •	•	needed to docume	ent the indicator or con	nfirm the absen	ce of indicators.)		
Depth	Matrix			Redox Features	2	-	-	-
(Inches)	Color (moist)	<u>%</u>	Color (moist)	% Type'	Loc ²	Texture	. Ker	narks
0-16	10YR 2/2	90				Sandy Loam		
0-16	Cobble	10					Large Cobble	
					·			
				Covered or Coated San		<u> </u>	² Location: PL=Pore Lining	•
-		licable to	all LRRs, unles	s otherwise noted.)		Indic	ators for Problematic	-
	Histosol (A1)			Sandy Redo			2 cm Muck	
	Histic Epipedon (A2))		Stripped Mat				Material (TF2)
	Black Histic (A3)				ky Mineral (F1) (e	except MLRA 1)		w Dark Surface (TF12)
	Hydrogen Sulfide (A	.4)		Loamy Gleye	ed Matrix (F2)		Other (expl	ain in Remarks)
	Depleted Below Dark	k Surface (/	A11)	Depleted Ma	atrix (F3)			
	Thick Dark Surface ((A12)		Redox Dark	Surface (F6)		³ Indicators of hydrophytic	
	Sandy Mucky Minera	al (S1)			ark Surface (F7)		hydrology must be prese	0
	Sandy Gleyed Matrix	k (S4)		Redox Depre	ressions (F8)		probler	
Restrictive	Layer (if present)):						
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes	<u>No X</u>
Remarks:						<u> </u>		
HYDROLO								
-	drology Indicato							
	icators (minimum o		uired; check all th	11.27	(20) (s (2 or more required)
	Surface Water (A1)			Water staine 1, 2, 4A, and	ed Leaves (B9) (d 4B)	Except MLRA		ed Leaves (B9) 2, 4A, and 4B)
	High Water Table (A	.2)			-		-	
	Saturation (A3)			Salt Crust (B				atterns (B10)
	Water Marks (B1) Sediment Deposits ((22)			ulfide Odor (C1)			n Water Table (C2) Visible on Aerial Imagery (
	Drift Deposits (B3)	<u>,</u> D2)				g Living Roots (C3)		c Position (D2)
	Algal Mat or Crust (E	R4)			f Reduced Iron (C		Shallow Aq	
	Iron Deposits (B5)	~,			Reduction in Plo		X Fac-Neutral	
	Surface Soil Cracks	(B6)			Stressed Plants (Mounds (D6) (LRR A)
	Inundation Visible or		agery (B7)		ain in Remarks)			e Hummocks (D7)
	Sparsely Vegetated							
Field Obser	rvations:					<u> </u>		
Surface Water			No X	Depth (inches):				
Water Table P		x	No	Depth (inches):	14	Wetland Hyd	drology Present?	
Saturation Pre (includes capillat		X	No	Depth (inches):	11		Yes	NoX
		auge, mon	itorina well, aerial pł	hotos, previous inspectio	ons). if available	 ::		
-	···- · · -				,,	-		
Remarks:								
	appeared to be a	at similar	elevation to wa	ter ponded in wetla	and.			
	• -			-				

	st Region	, and Coast	ntains, Valleys, a	M - Western Mour	DATA FO	ERMINATION	WETLAND DETI	
8/2018	3/28	ampling Date:	sop Sam	Gearhart/Clat	City/County:	erty	Palmberg Prop	roject/Site:
25	Sampling Point:	<u>R</u> S	State: OR				Bill Palmberg	pplicant/Owner:
	I, Range 10W	Fownship 6N, F	Section 10, To	nship, Range:	Section, To	/CR	SE/JT/CM	vestigator(s):
0	Slope (%):	Concave	ex, none): Co	Local relief (concave, conve	n	Depressio	e, terrace, etc.:)	andform (hillslope
WGS84	Datum:	-123.9073	Long: -12	46.0267	Lat:	RA		ubregion (LRR):
	None	tion:	NWI Classification	d	oamy Fine Sa	Warrenton Lo	ne:	oil Map Unit Nam
	lain in Remarks)	(if no, explair	No	Yes X	e of year?	e typical for this time	logic conditions on the site	re climatic/hydrol
-	Y	esent? (Y/N)	nal Circumstances" prese	rbed? Are "Norn	significantly dist	Hydrology	Soil or	re vegetation
)	answers in Remarks.)	atic? If needed, explain any	naturally probler	Hydrology	Soil or	re vegetation
	uraa ata	ortont footuu	troposto impo	nling naint location	howing com	ach aite man a		
	ures, etc.	ortant leatur	s, transects, impo	pling point locations	nowing san			
	Ne	N	¥ ¥	Is Sampled Area within		X No		ydrophytic Vegeta
	No		Yes X	a Wetland?		X No		ydric Soil Present
						<u> </u>	y Present? Yes	etland Hydrology
								emarks:
					S.	ames of plants	I - Use scientific n	EGETATION
		et:	nce Test worksheet:	Indicator Dominal	Dominant	absolute		
			_	Status	Species?	% cover	1-4	a otra t
(A)			Dominant Species			_)		ee Stratum (p
(A)	1		BL, FACW, or FAC:					
			ber of Dominant	 Total Num				
(B)	1		cross All Strata:					
(=)					= Total Cover	0		
			Dominant Species	Doroont of		<u> </u>	atum (plot size:	apling/Shrub Stra
(A/B)	100%	10	BL, FACW, or FAC:)		
(,,,,,,)								
		eet:	ice Index Worksheet	Prevaler				
	/:	Multiply by:	over of	Total % C				
_	0	x 1 =	Species	OBL				
-	0	x 2 =	V species		= Total Cover	0		
	0	x 3 =	Species			`		
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(P)	0	x 5 =	Species nn Totals 0		<u>X</u>	100	undinacea	
(B)		(A)						3
	#DIV/0!	#D	alence Index =B/A =	Prev				 ۱
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		dicators:	ytic Vegetation India	Hydroph				;
'n	rophytic Vegetatio	id Test for Hydrop	1- Rapid ⁻					,
	>50%	ninance Test is >5	X 2- Domina	_				3
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	tations ¹ (provide s			–)	m (plot size:	andu Viz - Ota t
[)	n a separate sheet ular Plants ¹	Remarks or on a land Non-Vascula)	um (plot size:	oody Vine Stratu
-xplain)	viar Plants							
			of hydric soil and wetlan	¹ Indicators	= Total Cover	0		
นเมษออ		,	-					
uness	, i ,		or problematic.	disturbed				
	No	Yes X	ytic	disturbed Hydroph Vegetati		0	Hart Otari	Bare Ground in

Profile Deciption: Develope to be depth needed to document the indicator v confirm the absence of indicators.) Mathy (intervent) Status Tanker Tanker Remarks 044 107R 2/f 100 Status Tanker Remarks 044 107R 2/f 100 Status Tanker Remarks 044 107R 2/f 100 Status Loamy Sand Medium 4-14 107R 2/f 100 Status Loamy Sand Medium 4-14 107R 2/f 100 Status Loamy Sand Medium	SOIL			PHS #	633	38	-		Sampling Point: 25	
Indian Color (multi) N Type Los Tealure Remarks 0-4 10YR 2/1 100 SYR 3/4 10 C M Loamy Sand Medium 4-14 10YR 2/1 90 SYR 3/4 10 C M Loamy Sand Medium 4-14 10YR 2/1 90 SYR 3/4 10 C M Loamy Sand Medium 4-14 10YR 2/1 90 SYR 3/4 10 C M Loamy Sand Medium 4-14 10YR 2/1 90 SYR 3/4 10 C M Loamy Sand Medium 1 10 C M Loamy Sand Medium Image: Sand Sand Sand Sand Sand Sand Sand Sand	Profile Descri	ption: (Describe to	the depth	needed to docum	ent the indic	ator or co	nfirm the absen	ce of indicators.)		
0-4 19YR 2/1 100	·					,	. 2			
4.44 19YR 2/1 90 SYR 3/4 10 C M Learny Sand Medium "Index of the second seco		······		Color (moist)	%	Туре	Loc		Remarks	
Type: C-Concentration, D-Depletion, RN=Roduced Matrix, CS=Covered or Ceated Sand Grains. *Locator: PL=Pore Lining, M=Matrix, Mydrid Soli Indicators for Problemetic Hydrid Soli *: Hydrid Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problemetic Hydrid Solis*: Head (1) X Sandy Redax (Sb) 2 cm Mack (A10) Head Rein (A3) Loemy Mudry Mitraid (CP) Other (explain in Remarks) Depleted Below Dat Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Trick Law: Surface (A12) Redox Depression (F3) ************************************			·		• •			-		
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histoei (A1) X Sandy Redox (S5) 2 cm Muck (A10) Histoei (A1) X Sandy Redox (S5) Red Prent Medicin (TF2) Black Histic (A3) Loamy Gleged Matrix (F3) Other (explain in Remarks) Other (explain in Remarks) Depideted Balow Dark Surface (A11) Depideted Matrix (F3) Other (explain in Remarks) Other (explain in Remarks) Sandy Mucky Mineral (S1) Depideted Dark Surface (F5) ³ Indicators of hydrophylis segletation and wetland hydrology matc b present; writes disturbed or problematic. Present (Fr present): Type:	4-14	10YR 2/1	90	5YR 3/4	10	C	<u> </u>	Loamy Sand	Medium	
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Historal (A1) X Sandy Readx (55) 2 cm Muck (A10) Historal (A1) X Sandy Readx (55) 2 cm Muck (A10) Black Hatic (A3) Loamy Gleged Matrix (50) Read Prent Mediatil (TF2) Other (explain in Remarks) Depleted Balox Dark Surface (A11) Depleted Matrix (F3) Other (explain in Remarks) Other (explain in Remarks) Sandy Macky Mineral (S1) Depleted Dark Surface (F5) ³ Indicators of hydrophylis segletation and wetland hydrology matc b prevarit, unless disturbed or problematic. Type:	·			·	· ·					_
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Histool (A1) X Sandy Rdack (S5) 2 cm Muck (A10) Histool (A2) Sindy Rdack (S5) 2 cm Muck (A10) Black Histo (A3) Loamy Gleged Matrix (S0) Read Prant Material (TF2) Depieted Bdow Dark Surface (A11) Depieted Matrix (F3) Other (explain in Remarks) Depieted Bdow Dark Surface (A12) Redox Dark Surface (F5) * Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) * Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) * Type:										
Histosol (A1) X Sandy Redox (S5) 2 on Muck (A10) Histo Epipedin (A2) Stripped Markix (S5)	¹ Type: C=Conc	centration, D=Deplet	tion, RM=R	Reduced Matrix, CS=	-Covered or (Coated Sar	nd Grains.		² Location: PL=Pore Lining, M=Matrix.	
Histic Epipedon (A2) Stipped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loarry Mucky Minoral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depicted Botw Dark Surface (A1) Depicted Matrix (F2) Other (explain in Remarks) Depicted Botw Dark Surface (A12) Redx Dark Surface (F7) ************************************	Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwis	se noted.	.)	Indic	cators for Problematic Hydric Soils ³ :	
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Hydrogen Sulfide (A4)		Histic Epipedon (A2))		s	Stripped Ma	atrix (S6)		Red Parent Material (TF2)	
Bepteted Below Dark Surface (A12) Redox Dark Surface (F8) Sandy Mucky Mineral (S1) Depteted Dark Surface (F7) Sandy Mucky Mineral (S1) Depteted Dark Surface (F7) Principal Gloged Matrix (F4) Redox Depressions (F8) Principal Gloged Matrix (S4) Redox Depressions (F8) Y Sufface (Niches): Secondary Indicators (2 or more required) X Sufface (S1) Water stained Leaves (B9) (Except MLRA X High Water Table (A2) 1, 2, 4A, and 48) Muchar 1, 2, 4A, and 48) X Saturation Visible on Aerial Imagery (B7) Saturation Visible on Aerial I		Black Histic (A3)			L	.oamy Muc	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF1	2)
Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophylic vegetation and wetland hydrophylic vegetation and wetland hydrophylic vegetation and wetland hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Redox Depressions (F8) Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Hydric Soil Present? Yes X No Remarks: Appears to be an old barrier area. HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) X Surface Water (A1) Water stained Leaves (B9) (Except MLRA X High Water Table (A2) 1, 2, 4A, and 4B) X Sati Crust (B1) Delayers Sufface (B13) Water Marks (B1) Aquatic Invertebrates (B13) Dr3-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sufface Or (C1) Saturation (Visible on Actial Imagery (D1) Mark and Crust (B4) Presence of Reduced Inon (C4) Shallow Aquitard (D3) Surface Soil Crucks (B5) Stunted or Stressed Plants (D1) (LRR A) Reised Ant Mounds (D6) (LRR A) Inundation Visible on Actail Imagery (B7) <td< td=""><td></td><td>Hydrogen Sulfide (A</td><td>.4)</td><td></td><td>L</td><td>oamy Gley</td><td>/ed Matrix (F2)</td><td></td><td>Other (explain in Remarks)</td><td></td></td<>		Hydrogen Sulfide (A	.4)		L	oamy Gley	/ed Matrix (F2)		Other (explain in Remarks)	
Sardy Mucky Mineral (S1) Depleted Dark Surface (F7) ^a Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:		Depleted Below Dar	k Surface ((A11)	C	Depleted M	atrix (F3)			
Sandy Maker (S1)		Thick Dark Surface	(A12)		F	Redox Dark	Surface (F6)			
Sandy Gleyed Matrix (S4) Redox Depressions (F8) problematic. Restrictive Layer (if present): Type:		Sandy Mucky Minera	al (S1)		C	Jepleted Da	ark Surface (F7)		, , , , ,	
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Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Field Observations: Stunted or Stressed Plants (D1) (LRR A) Frost-Heave Hummocks (D7) Surface Water Present? Yes X No Depth (inches): 5 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: Statilable Statilable		Algal Mat or Crust (E	34)		P	vresence of	f Reduced Iron (C	C4)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes X No Depth (inches): 5 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: Image: Stream gauge in the stream gauge in		Iron Deposits (B5)			F	Recent Iron	Reduction in Plo	owed Soils (C6)	X Fac-Neutral Test (D5)	
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes X No Depth (inches): 5 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes X No (includes capillary fringe) Ves X No Depth (inches): 0 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available:		Surface Soil Cracks	(B6)		s	Stunted or S	Stressed Plants ((D1) (LRR A)	Raised Ant Mounds (D6) (LRR A	4)
Field Observations: Surface Water Present? Yes X No Depth (inches): 5 Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes X No Saturation Present? Yes X No Depth (inches): 0 Yes X No Uncludes capillary fringe) Depth (acrial photos, previous inspections), if available: Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Inundation Visible or	n Aerial Im:	agery (B7)	С)ther (Expl	ain in Remarks)		Frost-Heave Hummocks (D7)	
Surface Water Present? Yes X No Depth (inches): 5 Water Table Present? Yes X No Depth (inches): 0 Saturation Present? Yes X No Depth (inches): 0 (includes capillary fringe) Yes X No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available:	;	Sparsely Vegetated	Concave S	3urface (B8)						
Water Table Present? Yes X No Depth (inches): 0 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 0 Yes X No (includes capillary fringe) Yes X No Depth (inches): 0 Yes X No	Field Obser	vations:								
Saturation Present? Yes X No Depth (inches): 0 Yes X No (includes capillary fringe) Depth (inches): 0 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Image: Construction of the stream gauge	Surface Water	Present? Yes	<u> </u>	No	Depth (i	inches):	5			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table P	resent? Yes	<u>X</u>	No	Depth (i	inches):	0	Wetland Hyd	drology Present?	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			X	No	Depth (i	inches):	0		Yes <u>X</u> No	
Remarks:	Describe Reco	orded Data (stream g	jauge, mor	nitoring well, aerial p	hotos, previo	ous inspecti	ions), if available	:		
Remarks:										
Remarks:										
	Remarks:									

		ETERMINATIO		RM - Weste	rn Mounta	ins. Vall	evs. and	Coast	PHS # Region	6338
Project/Site:	Palmberg P		City/County:		rhart/Clatsop		Sampling		•	3/2018
Applicant/Owner:	Bill Palmberg		, ,			State:	OR		ampling Point:	
nvestigator(s):	¥	CM/CR	Section, To	wnship, Range:		Section			Range 10W	
Landform (hillslope					ncave, convex, r		,		Slope (%):	
Subregion (LRR):	· · · · -	-RR A	Lat:	46.027		, Long:	-123.9	087	Datum:	
Soil Map Unit Nam			 Loamy Fine Sa				sification:		None	
•		e site typical for this tir	-	Yes	x	No			in Remarks)	
Are vegetation	•		significantly dist		Are "Normal (_				
Are vegetation	Soil	or Hydrology	_	matic? If needed			•	(1/18)	!	-
					, explain any an	Swers in Ren	iai K3.)			
SUMMARY O	F FINDINGS –	Attach site map	showing san	npling point	locations, t	ransects,	importar	t featur	es, etc.	
Hydrophytic Vegeta	ation Present? Ye	es X No	D							
Hydric Soil Present	t? Ye	es No	X o	Is Sampled Ar a Wetlar		Yes		No	x	
Wetland Hydrology	Present? Ye	es No	x			_				
Remarks:				1						
/EGETATION	- Use scientifi	c names of plan	nts.		-					
		absolute	Dominant	Indicator	Dominance	Test work	sheet:			
Гree Stratum (pl	lot size:	% cover	Species?	Status	Number of D-	minont Core	ios			
<u>100 Otratum</u> (pi		,			Number of Do That are OBL,	-			2	(A)
2					mat ale OBL,		AU		_	(~)
3					Total Number	of Dominant				
4					Species Acros				3	(B)
		0	= Total Cover						-	(=)
Sapling/Shrub Stra	tum (plataiza))			Dereent of Dev	minant Cuasi				
1	tum (plot size:)			Percent of Do			67	7%	(A/B)
י י					That are OBL,	FACVV, OF	-AC:	07	70	(A/D)
3					Prevalence	Index Wo	rksheet [.]			
4					Total % Cover			Iltiply by:		
5					OBL Spe			x 1 =	0	
		0	= Total Cover		FACW sp			x 2 =	0	
					FAC Spe	ecies		x 3 =	0	
lerb Stratum (pl	lot size: 5)			FACU Sp	pecies		x 4 =	0	
1 Unidentified	l grass	45	X	(FAC)	UPL Spe	ecies		x 5 =	0	
2 Carex obnu		40	<u> </u>	OBL	Column T	Totals	0 (A)	0	(B)
3 Plantago lar		25	<u> </u>	FACU						
4 Lotus cornie		5		FAC	Prevaler	nce Index =B	/A =	#DI	V/0!	
5 Rubus arme		2		FAC						
6 Juncus effu	sus	2		FACW	Hydrophytic	-				
/			. <u> </u>	·					nytic Vegetatio	n
8		119	- Total Cavar				- Dominance -Prevalence			
		119	= Total Cover						o.u ons ¹ (provide s	supporting
Voody Vine Stratu	m (plot size:)							separate shee	
1							- Wetland No		-	-
2						P	roblematic H	ydrophytic '	Vegetation ¹ (E	xplain)
		0	= Total Cover			-	d wetland hy	drology mu	st be present,	unless
					disturbed or pr	roblematic				
% Bare Ground in I	Herb Stratum				Hydrophytic Vegetation		Yes	x	No	

SOIL			PHS #	6338	8			Sampling Point: 26
Profile Descri	ption: (Describe to	the depth	needed to docume	ent the indica	ator or cor	ifirm the absend	ce of indicators.)	
Depth	Matrix			Redox F	Features			
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/3	100					Sandy Loam	
6-11	10YR 3/2	70	7.5YR 3/3	20	С	Μ	Loamy Sand	Medium
6-11	Gravel	10						Gravel
11-15	10YR 3/4	60					Sand	
11-15	Gravel	20						Gravel
11-15	10YR 3/3	20					Sand	
¹ Type: C=Conc	centration, D=Depleti	ion, RM=R	educed Matrix, CS=	Covered or C	oated San	d Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwise	e noted.))	Indic	ators for Problematic Hydric Soils ³ :
I	Histosol (A1)			Sa	andy Redo	x (S5)		2 cm Muck (A10)
I	Histic Epipedon (A2)			St	tripped Mat	trix (S6)		Red Parent Material (TF2)
ı	Black Histic (A3)			Lc	camy Muck	ky Mineral (F1) (e	xcept MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4)		Lc	camy Gleye	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	Surface (A11)	D(epleted Ma	atrix (F3)		
	' Thick Dark Surface (<i>i</i>		,		•	Surface (F6)		
	Sandy Mucky Minera					ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix				-	essions (F8)		hydrology must be present, unless disturbed or problematic.
	Layer (if present)							· · · · · · · · · · · · · · · · · · ·
		•						
Type:								
Depth (inches	;):						Hydric Soil Pres	sent? Yes <u>No X</u>
HYDROLO Wetland Hy	drology Indicator							
-								
	cators (minimum c	of one rec	juired; check all ti			(50) (Secondary Indicators (2 or more required)
	Surface Water (A1)	0)			, 2, 4A, and	ed Leaves (B9) (I 1 4B)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
	High Water Table (A:	2)						
	Saturation (A3)				alt Crust (B			Drainage Patterns (B10)
	Water Marks (B1)				-	rtebrates (B13)		Dry-Season Water Table (C2)
	Sediment Deposits (E	32)				ulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9
	Drift Deposits (B3)						g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B	4)				Reduced Iron (C		Shallow Aquitard (D3)
	Iron Deposits (B5)					Reduction in Plo	()	Fac-Neutral Test (D5)
	Surface Soil Cracks (itressed Plants (I	(LRR A)	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible on			0	ther (Expla	in in Remarks)		Frost-Heave Hummocks (D7)
	Sparsely Vegetated (Joncave S	unace (Bo)					
Field Observ	vations:							
Surface Water	Present? Yes		No X	Depth (in	iches):			
Water Table P	resent? Yes		No X	Depth (in	nches):	>15	Wetland Hyd	Irology Present?
Saturation Pres (includes capillar		<u> </u>	No	Depth (in	iches):	3-8		YesNoX
Describe Reco	orded Data (stream ga	auge mon	itoring well aerial of	notos previou	us inspectiv	ons) if available		
December 1000	ruou Dula (oriouni gi	uugo, mon	tioning won, donar pr	lotoo, proviou	io mopoode	<i>x</i> 10), il avallabio.		
Remarks:								
	rated zone from	3 to 8 inc	ches. drv below	that depth.	. Water fr	rom recent ra	ins appears to b	e slowly infiltrating. Water ponded in
-	pen pit but is not			•				······································
		•						

V	WETLAND) DETER	RMINATIO	Ν DATA FO	RM - Weste	ern Mountains, Va	llevs, and Coast	PHS #	6338
• Project/Site:		rg Proper		City/County:		rhart/Clatsop	Sampling Date:	-	/2018
pplicant/Owner:	Bill Palmb	• ·	<u>,</u>	, ,		· State:		Sampling Point:	27
vestigator(s):		JT/CM/C	R	Section, To	wnship, Range:		n 10, Township 6N,		
andform (hillslope,			Flats	_		ncave, convex, none):	Slightly concave	-	0
ubregion (LRR):	, ,	LRR A		Lat:	46.02			Datum:	WGS84
oil Map Unit Name:	<u>.</u>			Loamy Fine Sa			assification:	None	
re climatic/hydrolog				-	Yes	X No		in in Remarks)	
re vegetation	Soil			significantly dist		Are "Normal Circumstar		,	
re vegetation	Soil	_	drology			, explain any answers in R	1 ()	<u> </u>	
							sindiks.)		
UMMARY OF	FINDINGS	– Attac	h site map	showing sar	npling point	locations, transect	s, important featu	res, etc.	
/drophytic Vegetati	tion Present?	Yes	X No	0					
ydric Soil Present?	?	Yes	X No	0	Is Sampled Ar a Wetlar		X	lo	
etland Hydrology F	Present?	Yes	X N	0					
emarks:					1				
EGETATION ·	- Use scien	ntific nan	nes of plar	nts.		1			
			absolute % cover	Dominant Species?	Indicator Status	Dominance Test wo	rksheet:		
ee Stratum (plo	ot size:	١	70 COVE	Species?	อเลเนร	Number of Dominant Sp	acies		
<u>so oracam</u> (pio		/				That are OBL, FACW, or		3	(A)
								<u> </u>	(, ()
·						Total Number of Domina	nt		
1						Species Across All Strata		3	(B)
			0	= Total Cover					. ,
apling/Shrub Stratu	um (plot size	e: 15				Percent of Dominant Spe			
Salix sp.	<u>uni</u> (piot size	. <u> </u>	_′ 5	х	(FAC)	That are OBL, FACW, o		00%	(A/B)
ounx opi					(1710)				(,,,,,)
						Prevalence Index W	orksheet:		
						Total % Cover of	Multiply by:		
						OBL Species	x 1 =	0	
			5	= Total Cover		FACW species	x 2 =	0	
						FAC Species	x 3 =	0	
	ot size:	5)				FACU Species	x 4 =	0	
Lotus cornice			60	<u> </u>	FAC	UPL Species	x 5 =	0	
Unidentified	0		20	<u> </u>		Column Totals	0 (A)	0	(B)
Carex obnup			<u>10</u> 10		FACW OBL	Prevalence Index =	-D/A - #	DIV/0!	
Plantago lano			<1		FACU	Flevalence index -	-D/A - #L		
Leontodon sa			<1		FACU	Hydrophytic Vegeta	tion Indicators		
Leontodon Se							1- Rapid Test for Hydro	phytic Vegetation	ı
				·······		x	2- Dominance Test is >		
			100	= Total Cover			3-Prevalence Index is ≤		
							4-Morphological Adapta	tions ¹ (provide s	upporting
	n (plot size:)				data in Remarks or on a	-)
oody Vine Stratum	<u>n</u> (p.et eizei						5- Wetland Non-Vascul		
	<u>n</u> (piereize:							N 1 / -	
	<u>n</u> (p.e.e.201						Problematic Hydrophyti		
1	<u></u> (p.o. 0.20)		0	= Total Cover			and wetland hydrology m		
/oody Vine Stratum 1 2	<u></u> (p.c. cc.		0	= Total Cover		¹ Indicators of hydric soil a disturbed or problematic. Hydrophytic	and wetland hydrology m		

Some Juncus effusus east of plot. Vegetation is mowed, including shrub layer. Percent composition based on BPJ.

ofile Description: (Descr	be to the depth	needed to docume	nt the ind	icator or conf	firm the absen	ce of indicators.)			
	Matrix			x Features					
(Inches) Color (mo	oist) %	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-5 10YR 3	/3 99	7.5YR 4/6	1	<u> </u>	М	Silt Loam	Fine		
5-11 10YR 4	/1 85	2.5YR 2.5/1	5	<u> </u>	м	Loamy Sand	Large		
5-11		5YR 3/4	10	С	М	Loamy Sand	Large		
11-16 10YR 4	/2 100			,		Loamy Sand			
				·					
				- 					
be: C=Concentration, D=	Depletion, RM=F	Reduced Matrix, CS=	Covered or	r Coated Sand	d Grains.		² Location: PL	-=Pore Lining, M=N	latrix.
dric Soil Indicators:						Indic		oblematic Hydrid	
Histosol (A1)				Sandy Redox	(S5)			2 cm Muck (A10)	
Histic Epipedo	n (A2)			Stripped Matr	rix (S6)			Red Parent Materia	al (TF2)
Black Histic (A					y Mineral (F1) (except MLRA 1)		- Very Shallow Dark	Surface (TF12)
Hydrogen Sulf				Loamy Gleyed				Other (explain in R	
	w Dark Surface	(A11)	x	Depleted Mat					, ,
Thick Dark Su		(()		Redox Dark S					
Sandy Mucky					k Surface (F7)			f hydrophytic vegeta	
Sandy Mucky Sandy Gleyed				Redox Depres			hydrology m	nust be present, unle problematic.	ess disturbed or
strictive Layer (if pre				Neuton Bopier		т		problemado.	
oth (inches):						Hydric Soil Pres	sent? Yes	<u> </u>	No
pth (inches):						Hydric Soil Pre	sent? Yes	<u> </u>	No
pth (inches): narks:				<u> </u>		Hydric Soil Pre	sent? Yes	<u> </u>	No
pth (inches): marks: /DROLOGY				<u> </u>		Hydric Soil Pre	sent? Yes	<u> </u>	No
pth (inches): marks: /DROLOGY stland Hydrology Ind						Hydric Soil Pre			
pth (inches): narks: /DROLOGY etland Hydrology Ind mary Indicators (minir	num of one re	quired; check all th	nat apply)		(20)			/ Indicators (2 or	more required
pth (inches): narks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Wate	num of one red (A1)	quired; check all th		Water stained	. , .	Hydric Soil Pres		/ Indicators (2 or Water stained Lea	more requirec ves (B9)
pth (inches): narks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta	num of one rea (A1) Ible (A2)	quired; check all th		Water stained 1, 2, 4A, and	4B)			/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, ar	more required ves (B9) nd 4B)
pth (inches): narks: DROLOGY stland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3	num of one rea · (A1) ible (A2))	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B1	4B) 11)			<u>/ Indicators (2 or</u> Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns	more required ves (B9) nd 4B) (B10)
pth (inches): marks: 'DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (num of one rea · (A1) ible (A2)) B1)	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert	4B) 11) tebrates (B13)	Except MLRA		/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water	more required ves (B9) nd 4B) (B10) [.] Table (C2)
pth (inches): marks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep	num of one rea (A1) (ble (A2)) B1) osits (B2)	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul	4B) 11) tebrates (B13) Ifide Odor (C1)	Except MLRA	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible (more required ves (B9) nd 4B) (B10) • Table (C2) on Aerial Image
pth (inches): marks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits	num of one rea (A1) (bble (A2)) B1) osits (B2) (B3)	quired; check all th		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon	Except MLRA		<u>/ Indicators (2 or</u> Water stained Lea (MLRA1, 2, 4A, ar Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2)
pth (inches): marks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C	num of one rea (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4)	quired; check all tł		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F	4B) 11) Ifide Odor (C1) zospheres alon Reduced Iron ((Except MLRA g Living Roots (C3) C4)	Secondary	/ Indicators (2 or Water stained Lear (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I	more required ves (B9) nd 4B) (B10) [.] Table (C2) on Aerial Imagel on (D2) D3)
pth (inches): marks: //DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits	num of one rea (A1) (bble (A2)) B1) osits (B2) (B3) rust (B4) (B5)	quired; check all ti		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	4B) 11) tebrates (B13) Ifide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5)
pth (inches): marks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C	num of one rea (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6)			Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Image on (D2) D3) D5) s (D6) (LRR A)
pth (inches): marks: /DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	num of one rea (A1) (bble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Im	nagery (B7)		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	4B) 11) tebrates (B13) Ifide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5) s (D6) (LRR A)
pth (inches): marks: (DROLOGY etland Hydrology Ind mary Indicators (minir Surface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege	num of one rea (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6)	nagery (B7)		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Image on (D2) D3) D5) s (D6) (LRR A)
pth (inches): marks: //DROLOGY etland Hydrology Ind mary Indicators (minir Burface Water High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege	num of one ree (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Im tated Concave S	nagery (B7) Surface (B8)		Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5) s (D6) (LRR A)
Arrow Content of the second state of the seco	num of one real (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Im tated Concave S es	hagery (B7) Surface (B8)	Depth	Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain (inches):	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary X X	/ Indicators (2 or Water stained Lear (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5) s (D6) (LRR A)
Appth (inches):	num of one rea (A1) hble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Im tated Concave S es	lagery (B7) Surface (B8) No	Depth	Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain (inches): (inches):	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6)	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5) s (D6) (LRR A) nocks (D7)
	num of one real (A1) (ble (A2)) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Im tated Concave S es	hagery (B7) Surface (B8)	Depth	Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain (inches):	4B) 11) tebrates (B13) lfide Odor (C1) zospheres alon Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) owed Soils (C6) (D1) (LRR A)	Secondary X X	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Image on (D2) D3) D5) s (D6) (LRR A)
High Water Ta X Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege eld Observations: Irface Water Present? Y	num of one realized in the second sec	hagery (B7) Surface (B8) No No No nitoring well, aerial ph	Depth Depth Depth	Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain (inches): (inches):	4B) 111) tebrates (B13) Ifide Odor (C1) zospheres alone Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks)	Except MLRA g Living Roots (C3) C4) wed Soils (C6) (D1) (LRR A) Wetland Hyd	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Imager on (D2) D3) D5) s (D6) (LRR A) nocks (D7)
Perth (inches): Perton	num of one realized in the second sec	hagery (B7) Surface (B8) No No No nitoring well, aerial ph	Depth Depth Depth	Water stained 1, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain (inches): (inches):	4B) 111) tebrates (B13) Ifide Odor (C1) zospheres alone Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks)	Except MLRA g Living Roots (C3) C4) wed Soils (C6) (D1) (LRR A) Wetland Hyd	Secondary	/ Indicators (2 or Water stained Lea (MLRA1, 2, 4A, au Drainage Patterns Dry-Season Water Saturation Visible of Geomorphic Positi Shallow Aquitard (I Fac-Neutral Test (I Raised Ant Mound Frost-Heave Humm	more required ves (B9) nd 4B) (B10) Table (C2) on Aerial Image on (D2) D3) D5) s (D6) (LRR A) nocks (D7)

v	ETLAND DF	TERMINATIO		RM - Weste	rn Mount:	ains. Valle	evs. and	Coast	PHS # Reaion	6338	
Project/Site:	Palmberg Pr		City/County:		rhart/Clatso		•	ng Date:	•	28/2018 t: 28	
Applicant/Owner:	Bill Palmberg	<u> </u>				State:	'	-	ampling Point:		
nvestigator(s):	SE/JT/C	M/CR	Section, To	wnship, Range:					Range 10W		
andform (hillslope, te	errace, etc.:)	Pit	_ `	Local relief (cor	ncave, convex,		•	• *	Slope (%):		
Subregion (LRR):		RR A	Lat:	46.027	78	Long:	-123.	9075	Datum:		
Soil Map Unit Name:		Gearhart Fi	– ne Sandy Loa	m		NWI Class	sification:		- PFOC		
•	c conditions on the	site typical for this tim	-	Yes	х	No		f no, explain	in Remarks)		
Are vegetation		or Hydrology		turbed?	Are "Normal	Circumstance					
Are vegetation		or Hydrology		matic? If needed						-	
J		, , , , , , , , , , , , , , , , , , , ,			, , ,		,				
SUMMARY OF I	FINDINGS – A	ttach site map	showing sar	npling point	locations,	transects,	importa	nt featur	es, etc.		
lydrophytic Vegetatic	on Present? Yes	X No		Is Sampled Ar	oo within						
Hydric Soil Present?	Yes	8 <u>No</u>	Х	a Wetlar		Yes		No	x	-	
Vetland Hydrology Pi	resent? Yes	8 <u>No</u>	X								
Remarks:											
EGETATION -	Use scientific	names of plant									
		absolute % cover	Dominant Species?	Indicator Status	Dominance	e Test work	sheet:				
ree Stratum (plot	size: 30)	opecies :	Jiaius	Number of Do	ominant Speci	es				
1 Alnus rubra		′ 	х	FAC		, FACW, or F			5	(A)	
2						, , , , , , , , , , , , , , , , , , , ,				. /	
3					Total Number	r of Dominant					
4					Species Acro			:	5	(B)	
		75	= Total Cover				-			-	
apling/Shrub Stratur	<u>n</u> (plot size:	10)			Percent of Do	ominant Specie	es				
1 Rubus armeni		<u>10</u> , 10	х	FAC		, FACW, or F		10	0%	(A/B)	
2 Rubus specta		10	<u> </u>	FAC		,	-			. /	
3 Lonicera invo		5	X	FAC	Prevalence	e Index Wor	ksheet:				
4					Total % Cove	er of	Ν	fultiply by:	_		
5					OBL Sp	pecies		x 1 =	0	_	
		25	= Total Cover		FACW s	·		x 2 =	0	-	
	. –	<u> </u>			FAC Sp			x 3 =	0	-	
l <u>erb Stratum</u> (plot)			FACU S	·		x 4 =	0	-	
Ranunculus re	1	60	<u> </u>	FAC	UPL Sp		,	x 5 =	0		
2 Equisetum arv				FAC	Column	I OTAIS	0 (/	A)	0	(B)	
Polystichum n Juncus effusu		<u> </u>		FACU FACW	Provolo	ence Index =B/	Δ -	יח#	V/0!		
5 Lapsana comi	-	1		FACW	Prevale	ance index ≓B/	~- -	#DI	V/U:	-	
Oenanthe sari				OBL	Hydronhyfi	ic Vegetatio	n Indicat	ors:			
7						-			hytic Vegetatio	on	
3								e Test is >50			
		78	= Total Cover		-			Index is ≤ 3			
						4-	Morphologi	ical Adaptati	ons ¹ (provide	supporting	
oody Vine Stratum	(plot size:)				da	ata in Rema	arks or on a	separate shee	t)	
1						5-	Wetland N	lon-Vasculai	r Plants ¹		
2					L —				Vegetation ¹ (E		
		0	= Total Cover			hydric soil and	d wetland h	ydrology mu	st be present,	unless	
					disturbed or p Hydrophyt i						
% Bare Ground in He	rb Stratum	20			Vegetation		Yes	x	No		
					Present?		-		-		

Hedera helix is abundant on the Alder trees. As the trees were much further than 5 feet from the sample point they are not recorded in the woody vine stratum.

SOIL			PHS #	6338			Sampling Point:	28
	ption: (Describe to	the depth	needed to docume			nce of indicators.)		
Depth	Matrix			Redox Feature	1 0		- .	
(Inches)	Color (moist)	%	Color (moist)	% Туре	e ¹ Loc ²	Texture	Remarks	
0-19	10YR 3/3	100				Silt Loam		
¹ Type: C=Con	centration, D=Deplet	ion, RM=R	educed Matrix, CS=	Covered or Coated	Sand Grains.		² Location: PL=Pore Lining, M=I	Matrix.
	Indicators: (App					Indic	ators for Problematic Hydr	
-	Histosol (A1)				Redox (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2)			Matrix (S6)		Red Parent Mater	
	Black Histic (A3)	, ,			/ucky Mineral (F1)	(except MLRA 1)	Very Shallow Darl	
	Hydrogen Sulfide (A	4)			Gleyed Matrix (F2)	(,	Other (explain in F	
	Depleted Below Dar		A 1 1)					(ciliaiks)
	·		411)		d Matrix (F3)			
	Thick Dark Surface)ark Surface (F6)		³ Indicators of hydrophytic veget	ation and wetland
	Sandy Mucky Minera				d Dark Surface (F7))	hydrology must be present, un	less disturbed or
	Sandy Gleyed Matrix			Redox L	Depressions (F8)	1	problematic.	
Restrictive	Layer (if present):						
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes	No <u>X</u>
Remarks:								
HYDROLO Wetland Hy	GY drology Indicato	rs:						
Primary Indi	cators (minimum	of one rec	uired; check all t	hat apply)			Secondary Indicators (2 or	more required)
-	Surface Water (A1)				tained Leaves (B9)	(Except MLRA	Water stained Lea	
	High Water Table (A	2)		1, 2, 4A	, and 4B)		(MLRA1, 2, 4A, a	and 4B)
	Saturation (A3)			Salt Cru	st (B11)		Drainage Patterns	s (B10)
	Water Marks (B1)			Aquatic	Invertebrates (B13)		Dry-Season Wate	er Table (C2)
	Sediment Deposits (B2)		Hydroge	n Sulfide Odor (C1)	Saturation Visible	on Aerial Imagery (C9)
	Drift Deposits (B3)			Oxidized	l Rhizospheres alor	ng Living Roots (C3)	Geomorphic Posit	tion (D2)
	Algal Mat or Crust (E	34)		Presence	e of Reduced Iron ((C4)	Shallow Aquitard	(D3)
	Iron Deposits (B5)			Recent	ron Reduction in Pl	owed Soils (C6)	Fac-Neutral Test	(D5)
	Surface Soil Cracks	(B6)		Stunted	or Stressed Plants	(D1) (LRR A)	Raised Ant Mound	ds (D6) (LRR A)
	Inundation Visible or	n Aerial Ima	igery (B7)	Other (E	xplain in Remarks)		Frost-Heave Hum	mocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No X	Depth (inches)	:			
Water Table P	resent? Yes		No X	Depth (inches)	>19	Wetland Hyd	Irology Present?	
Saturation Pre	sent? Yes		No X	Depth (inches)	>19		Yes	No X
(includes capilla	y fringe)							
Describe Reco	orded Data (stream g	auge, mon	itoring well, aerial pł	notos, previous insp	ections), if available	9:		
Remarks:		_						

	WETLAND DETI	RMINATIO		RM - Weste	rn Mounta	ins Valle	evs and Coa	PHS #	6338
oject/Site:	Palmberg Prop		City/County:		rhart/Clatsop	•	Sampling Date:	•	8/2018
plicant/Owner:	Bill Palmberg	<u> </u>			•	State:	OR	Sampling Point:	29
vestigator(s):	SE/JT/CM	/CR	Section, To	wnship, Range:		Section 1	I0, Township 6	nship 6N, Range 10W	
	terrace, etc.:)		_ on	Local relief (cor	ncave, convex, n	ione):		Slope (%):	
bregion (LRR):	LRR		Lat:	46.027	78	Long:	-123.9075	Datum:	WGS84
il Map Unit Name			– ne Sandy Loai		-	· —	ification:	PFOC	
	gic conditions on the site		-	Yes	x	No		plain in Remarks)	
	-	Hydrology	-				" present? (Y/N)	-	
e vegetation		Hydrology		matic? If needed					
					, explain any and				
JMMARY OF	FINDINGS – Atta	ach site map	showing san	npling point	locations, t	ransects,	important fea	tures, etc.	
drophytic Vegeta	tion Present? Yes	X No							
dric Soil Present?	? Yes	X No		Is Sampled Ar a Wetlar		Yes	x	No	
etland Hydrology	Present? Yes	X No							
marks:									
EGETATION	- Use scientific na	ames of plant	ts.						
		absolute % cover	Dominant Species?	Indicator Status	Dominance	Test works	sheet:		
ee Stratum (plo	ot size:)	000003:	Otatus	Number of Do	minant Specie	s		
"		_^			That are OBL,	•		1	(A)
					,	- ,			()
					Total Number	of Dominant			
					Species Acros	s All Strata:		1	(B)
		0	= Total Cover						
pling/Shrub Strat	<u>um</u> (plot size:)			Percent of Dor	minant Specie	s		
		/			That are OBL,			100%	(A/B)
					,				、 ,
					Prevalence	Index Worl	ksheet:		
					Total % Cover	of	Multiply b	by:	
					OBL Spe	ecies	x 1 =	• 0	
		0	= Total Cover		FACW sp		x 2 =	• 0	
		`			FAC Spe		x 3 =	-	
	ot size: 5	_)	v		FACU Sp		x 4 =		
Carex obnup	018	100	<u> </u>	OBL	UPL Spe		x 5 =	= <u>0</u> 0	(D)
					Column 1		0 (A)		(B)
					Prevaler	nce Index =B/A	A =	#DIV/0!	
					i revaler				
					Hydrophytic	c Vegetatio	n Indicators:		
						-		drophytic Vegetatio	n
							Dominance Test is		
		100	= Total Cover				Prevalence Index i		
								ptations ¹ (provide s	
oody Vine Stratur	<u>m</u> (plot size:)						n a separate shee	i)
							Wetland Non-Vas		
					1			ytic Vegetation ¹ (E	
		0	= Total Cover		Indicators of h disturbed or pr	-	wetland hydrology	/ must be present,	uniess
					Hydrophytic				
Bare Ground in H	lerb Stratum	0			Vegetation		Yes X	No	
					Present?				

Rubus spectabilis, Oenanthe sarmentosa, and Ranunculus repens are common in this hydrologic regime, just not in the immediate vicinity.

SOIL			PHS #	63	38			Sampling Point: 29
Profile Descri	iption: (Describe to t	the depth	needed to docume	ent the indi	cator or cor	firm the absen	ce of indicators.)	
Depth	Matrix			Redox	x Features			
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 3/3	100					Silt Loam	
7-12	10YR 3/3	93	10YR 3/6	7	С	Μ	Silt Loam	Medium
¹ Type: C=Con	centration, D=Depleti	on, RM=R	educed Matrix, CS=	Covered or	Coated San	d Grains.		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwi	se noted.))	Indica	ators for Problematic Hydric Soils ³ :
	Histosol (A1)			:	Sandy Redo	x (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)			:	Stripped Mat	trix (S6)		Red Parent Material (TF2)
	Black Histic (A3)			ı	Loamy Muck	ky Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4)		·,	Loamy Gleye	ed Matrix (F2)		X Other (explain in Remarks)
	Depleted Below Dark		A11)		Depleted Ma			
	' Thick Dark Surface (<i>i</i>		,		•	Surface (F6)		
	Sandy Mucky Mineral					ark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Gleyed Matrix				' Redox Depre			hydrology must be present, unless disturbed or problematic.
	Layer (if present)				·'		1	
	Layer (il present)	•						
Туре:					-			
Depth (inches	»):						Hydric Soil Pres	sent? Yes X No
stopped at HYDROLO		e the sa	mple point was l	located u	nder wate	r and profile o	depths could no	longer be accuractely determined.
	drology Indicator	s.						
-			· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • •				
	cators (minimum c	of one rec	juired; check all ti			' · · · · · · · (D0) (Secondary Indicators (2 or more required)
	Surface Water (A1)	~		-	Water staine 1, 2, 4A, and	ed Leaves (B9) (I d 4B)	Except MLRA	Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
	High Water Table (A2	2)				-		
	Saturation (A3)				Salt Crust (B	,		Drainage Patterns (B10)
	Water Marks (B1)	D 0)			-	ertebrates (B13)		Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9
	Sediment Deposits (E Drift Deposits (B3)	32)				ulfide Odor (C1)	g Living Roots (C3)	Geomorphic Position (D2)
	Algal Mat or Crust (B	A)				Reduced Iron (C		Shallow Aquitard (D3)
	Iron Deposits (B5)	4)				Reduction in Plo		X Fac-Neutral Test (D5)
	Surface Soil Cracks ((B6)				Stressed Plants (I	· · · ·	Raised Ant Mounds (D6) (LRR A)
	Inundation Visible on		aderv (B7)			ain in Remarks)	<u> </u>	Frost-Heave Hummocks (D7)
	Sparsely Vegetated (0	, , , , , , , , , , , , , , , , , , ,		
Field Obser							<u> </u>	
		v	No	Dopth	(inches):	2		
Surface Water		<u>x</u>	No		(inches):	<u> </u>	Wotland Hyd	lealary Broant?
Water Table P			No		(inches):		Wellanu nyu	Irology Present?
Saturation Pre (includes capillar		<u> </u>	No	Depth	(inches):	0		Yes X No
Describe Reco	orded Data (stream ga	auge, mon	itoring well, aerial pr	notos, previr	ous inspectio	ons), if available:	:	
		0			·			
Remarks:	-							

WE		RMINATIO	N DATA FOI	RM - Weste	rn Mountains	s. Vallev	/s, and Coast	PHS #	6338
	Palmberg Prope		City/County:		rhart/Clatsop	, ,	Sampling Date:	-	/2018
	ill Palmberg	<u>,</u>	, ,		•	State:		ampling Point:	30
vestigator(s):	SE/JT/CM/	CR	Section, To	wnship, Range:			0, Township 6N, F		
andform (hillslope, terra		Pit	_		ncave, convex, none		-,	Slope (%):	
ubregion (LRR):	LRR		Lat:	46.027		Long:	-123.9059	Datum:	WGS84
bil Map Unit Name:	Entr		ne Sandy Loar			·	ication:	PFOC	110004
e climatic/hydrologic c	onditions on the site			Yes	X	No			
								,	
·		Hydrology					present? (Y/N)	<u> </u>	
e vegetation	Soil or H	-lydrology	naturally probler	matic? If needed,	, explain any answe	ers in Remar	rks.)		
UMMARY OF FI	NDINGS – Atta	ich site map	showing san	npling point	locations, trar	nsects, ir	mportant featur	es, etc.	
drophytic Vegetation I		No					•		
dric Soil Present?	Yes	No		Is Sampled Are a Wetlan		Yes	No	x	
etland Hydrology Pres		No		a wettan					
emarks:									
EGETATION - U	se scientific na	mes of plan	ts.						
<u></u>		absolute	Dominant	Indicator	Dominance Te	st works	heet:		
		% cover	Species?	Status					
<u>e Stratum</u> (plot siz	e:)			Number of Domination	ant Species	8		
		·			That are OBL, FA	CW, or FAC	D:	1	(A)
		·							
		·			Total Number of D	Dominant			
		. <u> </u>			Species Across A	II Strata:		2	(B)
		0	= Total Cover						
pling/Shrub Stratum	(plot size: 15)			Percent of Domina	ant Species			
Sambucus racer	mosa	90	х	FACU	That are OBL, FA	CW, or FA	C: 50	0%	(A/B)
Rubus spectabil	lis	10		FAC					
					Prevalence Inc	dex Works	sheet:		
					Total % Cover of		Multiply by:		
					OBL Specie	s	x 1 =	0	
		100	= Total Cover		FACW specie	es	x 2 =	0	
					FAC Specie	s	x 3 =	0	
<u>b Stratum</u> (plot siz	e: 5)			FACU Specie	es	x 4 =	0	
Ranunculus rep		60	Χ	FAC	UPL Specie	s	x 5 =	0	
Polystichum mu	nitum	3		FACU	Column Tota	als	0 (A)	0	(B)
Equisetum arvei	nse	1		FAC					
Cardamine sp.		1		(FAC)	Prevalence	Index =B/A	= #D I	V/0!	
		·							
					Hydrophytic V	-			
		·					Rapid Test for Hydrop		n
							Oominance Test is >5		
		65	= Total Cover				revalence Index is ≤ 3		upportin-
ody Vine Streture	(nlot size:)					lorphological Adaptati		
ody Vine Stratum	(plot size:)					a in Remarks or on a Vetland Non-Vascular	•)
		·					blematic Hydrophytic		volain)
		0	- Total Cours		¹ Indicators of hud-		wetland hydrology mu		
		<u> </u>	= Total Cover		disturbed or proble		wedanu nyurology Mu	si de present, t	11 II C 3 3
					Hydrophytic				
	Stratum	35			Vegetation		Yes	No	Х
Bare Ground in Herb	otratum				Present?			-	

Profile Description: (Description: to the depth needed to document the indicators or confirm the abaces of indicators.) Profile Depth indicators Profile Take Remarks: 0-11 10YR 32 100	SOIL			PHS #	6338	_		Sampling Point:	30	
Interview Code (press) % Type ¹ Los ⁶ Texture Remarks 0-11 10YR 2J2 100	Profile Descri	ption: (Describe to	the depth	needed to docume		onfirm the abse	nce of indicators.)			
6-11 10YR 2/2 100	•					. 2				
11-16 10YR 3/3 100 Sandy Loam "Type: C=Cencentration, D=Depiction, RM-Reduced Matrix, CSS=Covered or Coated Sand Grains. "Location: PL=Perce Lining, M=Matrix "Type: C=Cencentration, D=Depiction, RM-Reduced Matrix, CSS=Covered or Coated Sand Grains. "Location: PL=Perce Lining, M=Matrix "Type: C=Cencentration, D=Depiction, RM-Reduced Matrix, CSS=Covered or Coated Sand Grains. "Location: PL=Perce Lining, M=Matrix "Type: C=Cencentration, D=Depiction, RM-Reduced Matrix, CSS Sandy Recox (SS) 2 cm NMatrix (R1) Hidds (A1) Learny Macky Mineral (F1) Wery Statism Dark Surface (TF12) Other (explain in Remarks) Depicted Bolew Dark Surface (A11) Depicted Dark Surface (F6) Tack Dark Surface (F12) Other (explain in Remarks) Sandy Mourd (S1) Depicted Dark Surface (F6) moltactors of hydrochytic vegetation and wetar hydrology indicators of hydrochytic vegetation and wetar hydrology indicators (F6) moltactors of hydrochytic vegetation and wetar hydrology Indicators (F14) Sandy Mourd (S1) Depicted Dark Surface (F16) Sandy Macky Mineral (F17) No X Depicted Matrix (S4) Reduce Depresions (F8) No X No X Sandy Mourd (C4) Matrix Sander (C77) No X No X Sandy Moury Mineral (F12)	. ,			Color (moist)	% Type	Loc		Remarks		

Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ² : Historia (A1) Sandy Rodx (85) 2 cm Mark (A10) Historia (A2) Sityped Mark (85) Red Pranct Material (TF2) Hydrogen Suffice (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12 Hydrogen Suffice (A11) Depleted Mark (F2) Other (explain in Remarks) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) "indicators of hydrophytic vegetation and wetiar hydrology must be present, unless disturbed o problematic." Sandy Rody Mucky Mineral (S1) Depleted Mark (F2) "indicators of hydrophytic vegetation and wetiar hydrology must be present, unless disturbed o problematic." Type:	11-16	10YR 3/3	100				Sandy Loam			
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ² : Histoel (A1) Sardy Rodx (85) 2 cm Mark (A10) Heits Explored N(22) Stupped Mark (85) Red Prant Material (TF2) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Mark (75) Trick Dark Surface (A11) Sandy Mocky Mineral (S1) Depleted Mark (75) "Indicators of hydrophytic vagetation and wettar hydrology must be present, unless disturbed o problematic." Type: Sandy Kleyd Mark (S4) Rodox Depressions (F8) "Indicators of hydrophytic vagetation and wettar hydrology must be present, unless disturbed o problematic." Type: Depleted Mark (75) No X Depleted Mark (75) No X Restrictive Layer (If present): Type: No X Type: Depletion Mark (75) No X Satrace Water (A1) Water stained Leaves (89) (Except MLRA Water stained Leaves (89) Water stained Leaves (89) Saturation A3 Saturation A3 Saturation A443 Dep-Season Water Table (A2) Depleted Mark (A11) Water Marks (B1) Aquatic Invertebr										
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Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ² : Historia (A1) Sandy Rodx (85) 2 cm Mark (A10) Historia (A2) Sityped Mark (85) Red Pranct Material (TF2) Hydrogen Suffice (A2) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12 Hydrogen Suffice (A11) Depleted Mark (F2) Other (explain in Remarks) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) "indicators of hydrophytic vegetation and wetiar hydrology must be present, unless disturbed o problematic." Sandy Rody Mucky Mineral (S1) Depleted Mark (F2) "indicators of hydrophytic vegetation and wetiar hydrology must be present, unless disturbed o problematic." Type:										
Histosal (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Exploredor (A2) Stipped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Minral (F1) (except MLRA1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Sandy Micry Minral (F1) Depleted Matrix (TF2) Other (explain in Remarks) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) "Indicators (f7) indicators (F7) Restrictive Layer (If present): Type: problematic. Type:	¹ Type: C=Cond	centration, D=Deplet	ion, RM=Re	educed Matrix, CS=	Covered or Coated Sa	nd Grains.		² Location: PL=Pore Lining, M=N	Matrix.	
Histic Epipadin (A2) Stripped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) "indicators of hydrophytic vegetation and wetlar hydrology must be present, unless disturbed o Sandy Mucky Mineral (S1) Depleted Matrix (F2) "indicators of hydrophytic vegetation and wetlar hydrology must be present, unless disturbed o problematic." Restrictive Layer (if present): Type:	Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwise noted	.)	Indic	ators for Problematic Hydri	c Soils ³ :	
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Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (explain in Remarks) Depleted Belkow Dark Surface (A12) Redox Dark Surface (F6) 3 ¹ Indicators of hydrophylic vegetation and wetlar hydrology must be present, unless disturbed o problemate. Sandy Gleyed Matrix (S4) Depleted Dark Surface (F8) 3 ¹ Indicators of hydrophylic vegetation and wetlar hydrology must be present, unless disturbed o problemate. Restrictive Layer (if present): Type: Hydric Soil Present? Yes No X Remarks: Primary Indicators: Hydric Soil Present? Yes No X Primary Indicators (B1) Opeleted Dark (B13) Depleted Matrix (F3) Water stained Leaves (F9) Water stained Leaves (F9) Surface Water (A1) Water stained Leaves (F9) Secondary Indicators (2 or more requiree (10) Water stained Leaves (F9) Water stained Leaves (F9) Multary Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns (B10)		Histic Epipedon (A2)		Stripped Ma	atrix (S6)		Red Parent Mater	ial (TF2)	
Depteted Below Dark Surface (A12) Depteted Matrix (F3) Sandy Mucky Mineral (S1) Depteted Dark Surface (F6) Sandy Mucky Mineral (S1) Depteted Dark Surface (F7) Protein Sandy Mucky Mineral (S1) Depteted Dark Surface (F7) Protein Sandy Mucky Mineral (S1) Redox Depressions (F8) Protein Sandy Mucky Mineral (S1) Redox Depressions (F8) Protein Sandy Mucky Mineral (S1) Redox Depressions (F8) Protein Sandy Mucky Mineral (S1) Matrix Sandy		Black Histic (A3)			Loamy Muc	ky Mineral (F1)	(except MLRA 1)	Very Shallow Dark	surface (TF12)	
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Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) ^a Indicators of hydrophytic vegetation and wettan hydrology must be present, unless disturbed o problematic. Restrictive Layer (if present): Type:		-								
						. ,)	, , , , ,		
Type:									ess disturbed or	
Depth (inches): Hydric Soil Present? Yes No X Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) No X Seturation Chacks (B1) Saturation Sible Chacks (B2) Hydrogen Sufface Or (C4) Shallow Aquitard (D3) Sufface Soil Cracks (B6) Sufface Vater Present? Fost-Heave Hummocks (D7)	Restrictive I	Layer (if present):							
Depth (inches): Hydric Soil Present? Yes No X Remarks: Remarks: Remarks: Remarks: Remarks: Remarks: Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) No X Seturation Chacks (B1) Saturation Sible Chacks (B2) Hydrogen Sufface Or (C4) Shallow Aquitard (D3) Sufface Soil Cracks (B6) Sufface Vater Present? Fost-Heave Hummocks (D7)	Type:									
Remarks: HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Water Table (A2) Mater Table (A2) Mater Table (A2) Optimum of one required; check all that apply) Water Table (A2) Mater Table (A2) Mater Table (A2) Mater Table (R4) Depth (inches): Oridized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Suface Soil Crack (B6) <td colspan<="" td=""><td></td><td>s):</td><td></td><td></td><td></td><td></td><td>Hydric Soil Pre</td><td>sent? Yes</td><td>No X</td></td>	<td></td> <td>s):</td> <td></td> <td></td> <td></td> <td></td> <td>Hydric Soil Pre</td> <td>sent? Yes</td> <td>No X</td>		s):					Hydric Soil Pre	sent? Yes	No X
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required; check all that apply) Surface Water (A1) Y, 2, 4A, and 4B) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) Water stained Leaves (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Image Drift Deposits (B2) Hydrogen Suffide Odor (C1) Saturation Visible on Aerial Image Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Geomorphic Position (D2) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Raised Ant Mounds (D6) (LRR A) Sparsely Vegetated Concave Surface (B8) No X Depth (inches): >16 Yes No X Water Table Present? Yes No X Depth (inches): >16 Yes No X Water Table Present? Yes No X Depth (inches): >16		·					,			
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Ingli Match Table (k2) Saturation (A3)		Surface Water (A1)				. ,	(Except MLRA			
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Image Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): >16 Yes No X Saturation Present? Yes No X Depth (inches): >16 Yes No X Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Yes No X			.2)					-		
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Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Sturface Water Present? Yes No X Depth (inches): >16 Water Table Present? Yes No X Depth (inches): >16 Yes No X Saturation Present? Yes No X Depth (inches): >16 Yes No X Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: If available: If available:						•	5 5 X ,	·	. ,	
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Pres	sent? Yes							No <u>X</u>	
			0100	toring well seriel	otoo proviews in "	iono) if and it i				
Remarks:	Describe Reco	orded Data (stream g	lauge, moni	toring well, aerial pr	notos, previous inspect	ions), it available	e:			
Remarks:										
	Remarks:									

6338	PHS # ast Region	vs. and Coas	ains. Vallev	rn Mounta	RM - Weste	N DATA FOI	RMINATIO	WETLAND DETE	
/2018	-	Sampling Date:	_	rhart/Clatso		City/County:		Palmberg Proper	Project/Site:
31	Sampling Point:		State: C					Bill Palmberg	.pplicant/Owner:
	6N, Range 10W	0, Township 6N,	Section 10,		wnship, Range:	Section, To	R	SE/JT/CM/C	vestigator(s):
	Slope (%):		none):	ncave, convex,	Local relief (co	-		e, terrace, etc.:)	andform (hillslope,
WGS84	Datum:	-123.9059	Long:	74	46.02	Lat:	4	LRR	ubregion (LRR):
	PFOC	fication:	NWI Classific		n	- ne Sandy Loai	Gearhart Fi	ne:	oil Map Unit Name
	xplain in Remarks)		No	x	Yes	-		logic conditions on the site t	
		" present? (Y/N)	Circumstances" p	Are "Normal	urbed?	significantly dist	ydrology	Soil or Hy	re vegetation
		rks.)	nswers in Remark	, explain any ar					re vegetation
									·
	atures, etc.	mportant featu	transects, in	locations,	pling point	showing san	ch site map	F FINDINGS – Attac	UMMARY OF
				ea within	Is Sampled A		X No	ation Present? Yes	ydrophytic Vegeta
	No	<u>x</u>	Yes		a Wetla		X No	t? Yes	ydric Soil Present
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									emarks:
		haat.	e Test worksh	Dominana	Indiaator		•	I - Use scientific nar	EGETATION
		neet:	e lest worksni	Dominance	Indicator Status	Dominant Species?	absolute % cover		
		S	ominant Species	Number of D		<u> </u>)	olot size: 30)	ee Stratum (pl
(A)	5	C:	, FACW, or FAC:	That are OBL	FAC	Х	80	3	Alnus rubra
			r of Dominant	Total Numbe					
(B)	5		oss All Strata:	Species Acro					
						= Total Cover	80		
		3	ominant Species	Percent of Do)	atum (plot size: 10	apling/Shrub Strat
(A/B)	100%	.C:1	, FACW, or FAC	That are OBL	FAC	Х	25	ctabilis	Rubus spec
					FACW	X	10	ž – – – – – – – – – – – – – – – – – – –	Spiraea dou
		sheet:	e Index Works		FAC	X	10		Lonicera inv
		Multiply by:		Total % Cove	FAC		5		Alnus rubra
		x 1 =		OBL Sp	FAC	= Total Cover	<u>2</u> 52	eniacus	Rubus arme
		x 2 = x 3 =	·	FACW s		= Total Cover	52		
		x 4 =		FACU S)	olot size: 5)	erb Stratum (pl
	= 0	x 5 =	pecies	UPL Sp	OBL	X	75	ıpta	Carex obnu
(B)	0	0 (A)	Totals	Column	FAC		5	mericanum	Athyrium an
					FAC		5	s repens	Ranunculus
	#DIV/0!	.=#	ence Index =B/A =	Prevale	FAC		3	rophyllum	Geum macro
					OBL		1	americanus	Lysichiton a
			ic Vegetation I	Hydrophyt					
ו	/drophytic Vegetatio								
		Dominance Test is > Prevalence Index is ≤		-		= Total Cover	89		
upporting	aptations ¹ (provide s			-			03		
	on a separate sheet			-)	um (plot size:	oody Vine Stratur
	scular Plants ¹	Wetland Non-Vascu	5- W						
kplain)	hytic Vegetation ¹ (E	blematic Hydrophyt	Probl						
unless	y must be present,	wetland hydrology n	-		_	= Total Cover	0		
				disturbed or p Hydrophyt					
	No	Yes X		Vegetation			15	Herb Stratum	Bare Ground in H
	NU	IES A		vegetation			10		

Skunk cabbage is just coming up and will take up a larger percentage of cover in near future.

Toroll Description: (Description: Description: Description: Construction) Market Remarks 0-40 Gravel 73 7.5% 2.5.0 5 C M Loamy Sand Fine Preval 0-41 Gravel 73 7.5% 2.5.0 5 C M Loamy Sand Fine Gravel 0-41 Gravel 72 N Sand Fine Gravel Gravel <td< th=""><th>SOIL</th><th></th><th></th><th>PHS #</th><th>63</th><th>38</th><th></th><th></th><th>Sampling Point: 31</th></td<>	SOIL			PHS #	63	38			Sampling Point: 31
Closer Color (mole) % Type Lon Teature Remarks 0-9 2.87 2.611 75 7.57R 2.533 5 C M Loamy Sand Gravel 0-40 Gravel 20 93 57R 4.65 7 C M Sand Fine Modelum 14-17 10YR 22 100 - - - Mucky Peat Fine to Medium Type: C=Concentration, D=Dopotion, RM=Relation Manx, CB=Converd or Coated Sand Grans. *Location PL=Pow Ling, M=Manx *Location PL=Pow Ling, M=Manx Hydroid Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for ProDematic Hydrid Soils*: - Hydroid Soil Indicators: (Applicable to all LRRs, Unless otherwise noted.) Loary Mady Manx (Si) 2 on Mack (Al0) Sandy Redax (Si) 2 on Mack (Al0) Black Hale (A) Loary Mady Manx (Si) Loary Mady Manx (Si) 2 on Mack (Al0) Sandy Mady Manx (Si) Color (applicable to All LRRs, Unless otherwise Si) Other (applicable to All LRRs, Unless otherwise Si) Other (applicable to All LRRs, Unless otherwise Si) Color (applicable to All LRRs, Unless otherwise Si) Color (applicable to All LRRs, Unless othe	Profile Descri	ption: (Describe to	the depth	needed to docume	nt the indi	cator or cor	nfirm the absend	ce of indicators.)	
0-9 2.5Y 2.5/1 75 7.5YR 2.33 5 C M Loany Sand Fine Gravel 9-44 2.6Y 3.2 93 Si 7R 4/6 7 C M Sand Fine to Medium 14.17 10YR 2/2 100 T C M Sand Fine to Medium Fine Gravel 20 Sire A C M Sand Fine to Medium Fine Gravel 20 Sire Material Sandy Rotos (Si) 2 cm Material (T2) Material	Depth	Matrix							
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9-14 2.6Y 3/3 93 6YR 4/6 7 C M Sand Fine to Medium 14-17 10YR 22 100 Mucky Past Mucky Past Mucky Past Type: C-Connectivation, Dr-Depleton, RM-Heduce Matrix, CS-Covered or Costeel Sand Grains. *Location: PL-Pore Lang, M-Matrix, W-Matrix, M-Matrix, W-Matrix, M-Matrix, M-Matr	0-9	2.5Y 2.5/1	75	7.5YR 2.5/3	5	С	М	Loamy Sand	Fine
14-17 10YR 2/2 100 Mucky Peat Type: C=Concentration, D=Depotetor, RM=Reduced Matrix, CS=Covered or Casted Sand Graine. *Location; PL=Proc Lining, M=Matrix. Type: C=Concentration, D=Depotetor, RM=Reduced Matrix, CS Sandy Reduce(S5) Indicators (Applicable to all LRRs, unless otherwise noted.) Histic Epideol (A2) Sandy Reduce(S5) Red Parent Matrix (F2) Black Hate (A3) Loany Mucky Meerst (F3) Red Parent Matrix (F2) Depidend Below Dark Surface (A1) Depidend Matrix (S1) Red Parent Matrix (F2) Theid, Dark Surface (A1) Depidend Matrix (S1) Red Parent Matrix (F2) Depidend Below Dark Surface (A1) Depidend Matrix (F3) Produces of hydrologic weightion and weiland hydrology mat be possed. (F12) Theid, Dark Surface (A1) X Redox Depresenter (F5) Produces of hydrology mat be possed. (F2) Secreticity Layer (If present): Type: Depidend Deriv (F12) Mucky Matrix (S1) No Surface Water (A1) X Redox Depresenter (F3) Produces of hydrology mat be possed. (F3) YUPROLOGY Water stained Lawers (F3) Secondary Indicators (2 or more required) Mucky At and 4B) X Secondary Indicators (F1) Depident Matrix (F1) Depident Matrix (F1) Depident Matr	0-9	Gravel	20						Gravel
Type: C=Consertation, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grana. *Locator: PL=Pore Lining, M=Matrix. Type: C=Consertation, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grana. *Locator: ROPToblematic Hydric SoliB*: Histic Epipedon (A2) Sandy Medox (S9) 2 cm Mack (A10) Histic Epipedon (A2) Sandy Medox (Marix (S2) Other (coptain in Remarks) Depleted Matrix (S4) Loarry Medox Matrix (F2) Other (coptain in Remarks) Depleted Matrix (S4) Loarry Glenet Matrix (F2) Other (coptain in Remarks) Depleted Matrix (S4) Redox Dark Surface (F1) *Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic. Restrictive Layer (# present): Type: Hydric Soil Present? Yes	9-14	2.5Y 3/3	93	5YR 4/6	7	С	М	Sand	Fine to Medium
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ : Heltose (A1) Sandy Redox (S5) Red Parton Mainin (T2) Black Histic (A3) Learny Mucky Mineral (F1) (except MLRA 1) Yery Shallow Dark Surface (TF12) Dippleed Below Dark Surface (A1) Dippleed Matrix (S2) Thick Dark Surface (A1) Other (explain in Remarks) Black Histic (A3) Learny Gleyed Matrix (F2) Other (explain in Remarks) Thick Dark Surface (A12) X Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Thick Dark Surface (A12) X Redox Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Thick Dark Surface (F1) Thick Dark Surface (F1) Thick Dark Surface (F1) Secondary Indicators: Problematic Hydric Soil Present? Yes X No No Period Matrix (S4) Redox Dark Surface (F1) Thick Dark Surface (F1) Thick Dark Surface (F1) Starface Water (A1) Yer (A And A14) Water stained Leaves (B0) (KLRA) Water stained Leaves (B1) Water stained Leaves (B1) Water stained Leaves (B1) Duringe Patterne (B10) X Saturbion (A3) Saturbion (A3) Saturbion (C1) Saturbion (C1) Saturbion (C1) Saturbion (C	14-17	10YR 2/2	100	·				Mucky Peat	
histoso (A1) Sandy Redox (S5) Indicators for Problematic Hydric Solls ³ : Histoso (A1) Sandy Redox (S5) Red Parn Mainia (T2) Black Histic (A3) Loarry Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (T12) Depleted Below Dark Surface (A1) Depleted Matrix (F2) Other (explain in Remarks) Depleted Below Dark Surface (A12) X Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Other (explain in Remarks) Indicators of hydrophytic vegntation and walland hydrology must be present, unless disturbed or problematic. Problematic (F7) Yper: Minit (S4) Redox Dark Surface (F7) Indicators (2 or more frequired) Yper: Hydric Soil Present? Yes X No amarka: Surface Water (A1) Water stained Leaves (B0) (Except MLRA Water stained Leaves (B1) Water stained Leaves (B1) X High Water Table (A2) 1.2.4.A. and 49 Surface Matrix (A1) Depleted Surface (F1) Depleted Surface (F1) X Startation (A3) Sait Crust (B11) Darkage Patterns (B10) Depleted Surface (F1) Deplete									
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) Red Parm Maxim (T2) Black Histic (A3) Loarny Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Other (explain in Remarks) estrictive Layer (if present): redox Dark Surface (F7) "indicators of hydrophytic vegatation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if present):									
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histoci (A1) Sandy Redox (S5) Red Parn Maini (T2) Histoci (A1) Sandy Redox (S5) Red Parn Maini (T2) Black Histic (A3) Loarny Mucky Minoral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Bolew Dark Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Black Histic (A3) Depleted Matrix (F2) Other (explain in Remarks) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Other (explain in Remarks) sandy Kucky Mineral (S1) Depleted Matrix (F2) No estrictive Layer (I present): yper: yper: yper: yper: Hydric Soil Present? Yes X No sards Water (A1) YL 4 An and 45) Water statined Laware (B9) (Except MLRA Water statined Laware (B9) Water statine Leves (B9) YDROLOGY Saturation (A3) Sat Crust (S11) Depleted Site (C1) Saturation (A3) Sat Crust (B11) X High Water Table (A2) X Hydrogen Suffic (cr(1) Saturation (A3) Sat Crust (B13) Dry:Spasen Water Table (C2) Secondary Indicators (B1) Aquatic Invertifications (G1) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
ydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls ³ : Histoci (A1) Sandy Redox (S5) Red Parn Maini (T2) Histoci (A1) Sandy Redox (S5) Red Parn Maini (T2) Black Histic (A3) Loarny Mucky Minoral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Bolew Dark Surface (A11) Depleted Matrix (F2) Other (explain in Remarks) Black Histic (A3) Depleted Matrix (F2) Other (explain in Remarks) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Other (explain in Remarks) sandy Kucky Mineral (S1) Depleted Matrix (F2) No estrictive Layer (I present): yper: yper: yper: yper: Hydric Soil Present? Yes X No sards Water (A1) YL 4 An and 45) Water statined Laware (B9) (Except MLRA Water statined Laware (B9) Water statine Leves (B9) YDROLOGY Saturation (A3) Sat Crust (S11) Depleted Site (C1) Saturation (A3) Sat Crust (B11) X High Water Table (A2) X Hydrogen Suffic (cr(1) Saturation (A3) Sat Crust (B13) Dry:Spasen Water Table (C2) Secondary Indicators (B1) Aquatic Invertifications (G1) <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Histosci (A1)	ype: C=Cond	centration, D=Deplet	ion, RM=R	educed Matrix, CS=	Covered or	Coated Sar	nd Grains.		² Location: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Stipped Matrix (S6) Red Parent Material (TF2) Black Histic (A3) Loamy Micky Minoral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Depleted Betwo Dark Surface (A12) X Red A Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Depleted Matrix (F3) "indicators of hydrophytic vegotation and welland hydrology must be present, unless disturbed or problemate. estrictive Layer (If present):	ydric Soil I	Indicators: (App	licable to	all LRRs, unles	s otherwi	ise noted.])	Indic	ators for Problematic Hydric Soils ³ :
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X Hydrogen Sulface (A4) Loamy Gleyed Matrix (F2) Other (explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) "Indicators of hydrophylic vagetation and wetland hydrology must be present, unless disturbed or problematic." Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) "Indicators of hydrophylic vagetation and wetland hydrology must be present, unless disturbed or problematic." sestrictive Layer (If present): ype: Hydric Soil Present? Yes X No marks: Hydric Soil Present? Yes X No Modern Present? Yes X No Surface Water (A1) 1, 2, 4A, and 49) Secondary Indicators (2 or more required) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) Trinnage Patterns (E10) Dry-Season Water (A1) Dry-Season Water Table (C2) X High Water Table (A2) X Hydroxers states (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery of the reserve (B3) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (B7) Saturation Visible on								except MLRA 1)	
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) X Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (If present): rpp: epth (inches):			4)					,	
				(11)					
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									³ Indicators of hydrophytic vegetation and wetland
estrictive Layer (if present):									
ype::			• •			Redox Depre	essions (⊦ờ)	 	problematic.
pepth (inches): Hydric Soil Present? Yes X No emarks:	estrictive l	Layer (if present)):						
Provide a stand by the stan	уре:					_	İ		
NYDROLOGY Vetland Hydrology Indicators: trimary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water stained Leaves (B9) (Except MLRA X High Water Table (A2) 1, 2, 4A, and 4B) X Saturation (A3) Salt Crust (B11) Water Marks (B1) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) X High Ad or Crust (B4) Presence of Reduced Iron (C4) For Deposits (B5) Recent Iron Reduction In Plowed Solis (C6) Surface Soli Cracks (B6) Sturted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain In Remarks) Sparsely Vegetated Concave Surface (B8) Poepth (inches): Vater Table Present? Yes Vater Table Present? No Agait Present? Yes Vater Adverter Present? No Adverter Present? Yes Vetard Dresent? Yes Vetard Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: marks:	epth (inches	;):					İ	Hydric Soil Pres	sent? Yes X No
Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) X Saturation (A3) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Field Observations: Depth (inches):			rs:						
Surface Water (A1) Water stained Leaves (B9) (Except MLRA Water stained Leaves (B9) X High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) X Saturation (A3) Saturation (A3) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geemorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Field Observations: Surface Recert? Yes X No Surface Water Present? Yes X No Depth (inches): Yes Yes No Saturation Present? Yes X No Depth (inches): Yes Yes No Saturation Present? Yes X No Depth (inches): Yes	Primary Indic	cators (minimum o	of one rec	uired; check all th	hat apply)	1			Secondary Indicators (2 or more required)
X High Water Table (A2) 1, 2, 4A, and 4B) (MLRA1, 2, 4A, and 4B) X Saturation (A3) Satt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 4 Yes X No Vater Table Present? Yes X No Depth (inches): 2 Yes X No Vater Table Present? Yes X No Depth (inches): 2 Yes X No Vater Table Present? Yes	,	1		1	11 27		ed Leaves (B9) (I	Except MLRA	
X Saturation (A3) Sati Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 4 Wetland Hydrology Present? Vater Table Present? Yes X No Depth (inches): 2 Vater Table Present? Yes X No Depth (inches): 2 Yes No Includes capillary fringe) Yes X No Depth (inches): 2 Yes No Me Indues capillary fringe) Yes X		, , , , , , , , , , , , , , , , , , ,	(2)		-			•	
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 4 Wetland Hydrology Present? Yes X No Depth (inches): 2 Yes X No Includes capillary fringe) X No Depth (inches): 2 Yes X No Imagery No Mater Table Present? Yes X No Depth (inches): 2 Yes X No Includes capillary fringe) X No Depth (inches): 2 Yes X			-,			Salt Crust (E	311)		Drainage Patterns (B10)
Sediment Deposits (B2) X Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 4 Wetland Hydrology Present? Vater Table Present? Yes X No Depth (inches): 2 Vater Table Present? Yes X No Depth (inches): 2 Yes X No Lauration Present? Yes X No Depth (inches): 2 Yes X No Lauration Present? Yes X No Depth (inches): 2 Yes X No Leacribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches): 4 Wetland Hydrology Present? Yes X No Depth (inches): 2 Yes X No Vater Table Present? Yes X No Depth (inches): 2 Yes X No Vater Table Present? Yes X No Depth (inches): 2 Yes X No Vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: marks: Wetland Hydrology Mo			B2)			-			Saturation Visible on Aerial Imagery (
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Pepth (inches): 4 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 2 Yes X No Saturation Present? Yes X No Depth (inches): 2 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: previous inspections), if available: previous inspections), if available:			,					Living Roots (C3)	
Iron Deposits (B5) Recent Iron Reduction in Plowed Soils (C6) X Fac-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Depth (inches):			34)						
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Teld Observations: Frost-Heave Hummocks (D7) Surface Water Present? Yes X Depth (inches): 4 Wetland Hydrology Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 2 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: marks: Emarks:			,				,	,	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Field Observations: Field Observations: Surface Water Present? Yes X No Depth (inches): 4 Wetland Hydrology Present? Vater Table Present? Yes X No Depth (inches): 4 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 2 Yes X No Includes capillary fringe) Pescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Pervious inspections), if available: Pervious inspections), if available:			(B6)						
Field Observations: No X Depth (inches): Herman Surface Water Present? Yes X No Depth (inches): 4 Vater Table Present? Yes X No Depth (inches): 4 Saturation Present? Yes X No Depth (inches): 2 Yes X No Saturation Present? Yes X No Depth (inches): 2 Yes X No Includes capillary fringe) Depth (inches): 2 Yes X No				agery (B7)		Other (Expla	ain in Remarks)		Frost-Heave Hummocks (D7)
Surface Water Present? Yes No X Depth (inches): 4 Water Table Present? Yes X No Depth (inches): 4 Saturation Present? Yes X No Depth (inches): 2 Saturation Present? Yes X No Depth (inches): 2 Yes X No Saturation Present? Yes X No Depth (inches): 2 Yes X No Saturation Present? Yes X No Depth (inches): 2 Yes X No Saturation Present? Yes X No Depth (inches): 2 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: emarks: emarks: Emarks:	;	Sparsely Vegetated	Concave S	surface (B8)					
Vater Table Present? Yes X No Depth (inches): 4 Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches): 2 Yes X No includes capillary fringe) Depth (inches): 2 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: marks: Previous inspections) Previous inspections)	ield Obser	vations:							
Saturation Present? Yes X No Depth (inches): 2 Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Previous inspections), if available: Previous inspections), if available: Previous inspections), if available:	Surface Water	Present? Yes		No X	Depth	(inches):			
ncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Vater Table P	resent? Yes	x	No	Depth	(inches):	4	Wetland Hyd	Irology Present?
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			Х	No	Depth	(inches):	2		Yes X No
marks:				itoring woll gerial ph	atas previ	cue inenecti	ana) if available:		
	Jeschbe reco	rdeu Data (Sireani y	auge, mon	Itoning wen, aenai pi	10105, previ	ous inspection	DNS), II available.		
	marks:								
		table may actual	lv be per	ched water table					

v	VETLAND DET	ERMINATION	N DATA FOI	RM - Weste	rn Mountains, Val	leys, and	Coast F	PHS # Region	6338
roject/Site:	Palmberg Pro	perty	City/County:	Gea	rhart/Clatsop	Sampling	Date:	3/28	/2018
pplicant/Owner:	Bill Palmberg				State:	OR	Sa	mpling Point:	32
vestigator(s):	SE/JT/CN	//CR	Section, To	wnship, Range:	Section	10, Townsl	hip 6N, R	ange 10W	
andform (hillslope, t	terrace, etc.:)	Flats	-	Local relief (cor	ncave, convex, none):			Slope (%):	
ubregion (LRR):	LRI	RA	Lat:	46.027	78 Long:	-123.90	075	Datum:	WGS84
oil Map Unit Name:		Gearhart Fi	- ne Sandy Loar	m	NWI Cla	ssification:		PFOC	
-	ic conditions on the si		-	Yes				in Remarks)	
re vegetation		·Hydrology		urbed?	Are "Normal Circumstand			Ŷ	
e vegetation		· Hydrology			, explain any answers in Re	-			
					,				
UMMARY OF	FINDINGS - Att	tach site map	showing san	npling point	locations, transects	, importan	t feature	es, etc.	
/drophytic Vegetati	ion Present? Yes	X No		Is Sampled Are	oo within				
ydric Soil Present?	Yes	No	X	a Wetlan			No	Х	
etland Hydrology F	Present? Yes	X No							
emarks:									
	located immediate	ely south of the	wetland bound	dary.					
EGETATION -	 Use scientific r 	names of plant	s.						
		absolute % cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:			
ee Stratum (plot	t size:)	0000000	Jaido	Number of Dominant Spe	cies			
		/			That are OBL, FACW, or		2	2	(A)
									()
					Total Number of Dominan	t			
L					Species Across All Strata		2	2	(B)
		0	= Total Cover						
pling/Shrub Stratu	<u>ım</u> (plot size: 1	5)			Percent of Dominant Spe	cies			
Rosa pisocar	тра	² 50	X	FAC	That are OBL, FACW, or	FAC:	100	0%	(A/B)
Oemleria cera	asiformis	10		FACU					
Sambucus ra	cemosa	10		FACU	Prevalence Index Wo	orksheet:			
					Total % Cover of	Mu	ltiply by:		
					OBL Species		x 1 =	0	
		70	= Total Cover		FACW species		x 2 =	0	
erb Stratum (plot	t size: 5)			FAC Species FACU Species		x 3 = x 4 =	0	
Carex obnup		′ 40	x	OBL	UPL Species		x 5 =	0	
Polystichum		10		FACU	Column Totals	0 (A)			(B)
Lysichiton an		2		OBL	-	()			()
					Prevalence Index =	3/A =	#DI	V/0!	
					Hydrophytic Vegetat	on Indicato	rs:		
						1- Rapid Test f	or Hydroph	ytic Vegetation	ı
						2- Dominance [·]			
		52	= Total Cover			3-Prevalence In 1 Morphologics			upportine
oody Vine Stratum	plot size:)				4-Morphologica data in Remark			
	<u> (piet bize</u> .	/				5- Wetland Nor		•	1
						Problematic Hy			(plain)
·		0	= Total Cover		¹ Indicators of hydric soil a				
					disturbed or problematic.	,		. ,	
Bare Ground in He	ark Stratur	48			Hydrophytic Vegetation	Yes	x	No	

SOIL			PHS #	6338	_		Sampling Point:	32
		the depth	needed to docume	ent the indicator or c	onfirm the abser	nce of indicators.)		
Depth (Inches)	Matrix	0/	Color (moiot)	Redox Features % Type ¹	Loc ²	Tautura	Demorize	
(Inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> Type		Texture	Remarks	
0-18	10YR 3/2	100		/		Silt Loam		
				<u> </u>				<u> </u>
				Covered or Coated S			² Location: PL=Pore Lining, M=M	
-		icable to	all LRRs, unles	s otherwise noted		Indic	ators for Problematic Hydric	Soils":
	Histosol (A1)			Sandy Re			2 cm Muck (A10)	
	Histic Epipedon (A2)			Stripped N			Red Parent Materia	. ,
	Black Histic (A3)				cky Mineral (F1) ((except MLRA 1)	Very Shallow Dark	Surface (TF12)
	Hydrogen Sulfide (A4	4)		Loamy Gle	eyed Matrix (F2)		Other (explain in Re	emarks)
	Depleted Below Dark	c Surface (A11)	Depleted I	Matrix (F3)			
	Thick Dark Surface (A12)		Redox Da	rk Surface (F6)		³ Indicators of hydrophytic vegetal	ion and watland
	Sandy Mucky Minera	ll (S1)		Depleted I	Dark Surface (F7)	1	hydrology must be present, unle	
	Sandy Gleyed Matrix	(S4)		Redox De	pressions (F8)		problematic.	
Restrictive	Layer (if present)	:						
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes N	lo X
Remarks:								
HYDROLO Wetland Hy	GY drology Indicato	rs:						
Primary India	cators (minimum o	of one rec	juired; check all t	hat apply)			Secondary Indicators (2 or i	more required)
	Surface Water (A1)				ned Leaves (B9)	(Except MLRA	X Water stained Leav	
Х	High Water Table (A	2)		1, 2, 4A, a	nd 4B)		(MLRA1, 2, 4A, ar	id 4B)
X	Saturation (A3)			Salt Crust	(B11)		Drainage Patterns	(B10)
	Water Marks (B1)			Aquatic In	vertebrates (B13)		Dry-Season Water	Table (C2)
	Sediment Deposits (B2)		Hydrogen	Sulfide Odor (C1))	Saturation Visible of	on Aerial Imagery (CS
	Drift Deposits (B3)			Oxidized F	Rhizospheres alor	ng Living Roots (C3)	X Geomorphic Position	on (D2)
	Algal Mat or Crust (B	4)		Presence	of Reduced Iron (C4)	Shallow Aquitard (I	03)
	Iron Deposits (B5)			Recent Iro	n Reduction in Pl	owed Soils (C6)	X Fac-Neutral Test (E	05)
	Surface Soil Cracks	(B6)		Stunted or	Stressed Plants	(D1) (LRR A)	Raised Ant Mounds	s (D6) (LRR A)
	Inundation Visible on	Aerial Ima	igery (B7)	Other (Exp	olain in Remarks)		Frost-Heave Humm	nocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes		No <u>X</u>	Depth (inches):				
Water Table P	resent? Yes	<u> </u>	No	Depth (inches):	11	Wetland Hyd	Irology Present?	
Saturation Pre		<u>X</u>	No	Depth (inches):	9		Yes <u>X</u> N	lo
(includes capillar		audo mor	itoring well coriel -	hotos, previous inspec	tions) if available			
Describe Neco	ilded Data (Stream g	auge, mon	noning wen, aenai p	notos, previous inspec	nons), il available	5.		
Remarks:								

6338	PHS # _ st Region	and Coast I	levs. ar	ains. Vall	ern Moun	RM - Weste		RMINATIO	WETLAND DETE	,
/2018	-	mpling Date:	•		arhart/Clatso		City/County:		Palmberg Prope	oject/Site:
33	Sampling Point:	Sa	OR	State:					Bill Palmberg	plicant/Owner:
,	N, Range 10W		10, Tow	Section		wnship, Range:	Section, To	CR	SE/JT/CM/0	vestigator(s):
	Slope (%):	• •			ncave, conve	Local relief (co	- '	Flats	e, terrace, etc.:)	ndform (hillslope,
WGS84		123.9075	-12	Long:		46.02	Lat:	A		Ibregion (LRR):
	PFOC		ssification:	_			- ne Sandy Loai			il Map Unit Name
	olain in Remarks)			No	x	Yes	-		logic conditions on the site	
	,	sent? (Y/N)	es" nreser	-				lydrology	0	e vegetation
	<u> </u>		•				naturally problem	lydrology		e vegetation
			naiks.)		, explain any a					
	tures, etc.	ortant featur	, import	transects	locations	pling point	showing san	ch site map	F FINDINGS – Atta	UMMARY OF
								X No	ation Present? Yes	drophytic Vegeta
	No	No	х	Yes		ls Sampled A a Wetla		X No	nt? Yes	/dric Soil Present'
		_		_				X No	y Present? Yes	etland Hydrology
									-	emarks:
							S.	mes of plant	N - Use scientific na	EGETATION
			ksheet:	ce Test work	Dominan	Indicator	Dominant	absolute		
				Demain+ C	Number	Status	Species?	% cover	hlot sizo:	ee Stratum (plo
(A)	2			Dominant Spec)		<u>ee Stratum</u> (pi
(A)	2		-AC:	L, FACW, or F	That are OF			· · · · · · · · · · · · · · · · · · ·		
			ŧ	er of Dominant	Total Numb			· · · · · · · · · · · · · · · · · · ·		
(B)	3			oss All Strata:						
(2)					000000710		= Total Cover	0		
										unling/Chruch Strat
	070/	67		ominant Spec		FAC	v	/	()	pling/Shrub Strat
(A/B)	67%		FAC:	L, FACW, or I	That are OF	FAC FACU	<u> </u>	<u>40</u> 10	•	Rosa pisoca Sambucus ra
		ot:	rksheet.	e Index Wo	Prevalen	1400			lacemosa	Sambucus n
	v.	Multiply by:	inoneet.		Total % Cov					
		x 1 =		species						
		x 2 =		species			= Total Cover	50		
		x 3 =		pecies						
	0	x 4 =		Species	FACU)	blot size: 5	erb Stratum (plo
	0	x 5 =		pecies	UPL S	OBL	X	30		Carex obnup
(B)	0 ((A)	0	n Totals	Colum	OBL		3		Lysichiton a
						FACU		1	quilinum	Pteridium aq
	#DIV/0!	#DI	8/A =	ence Index =B	Preva			· · · · · · · · · · · · · · · · · · ·		
			• ••					· · · · · · · · · · · · · · · · · · ·		
				tic Vegetatio	Hydrophy					
ו	rophytic Vegetatior				-					
		nance Test is >50 ence Index is ≤ 3			-		- Total Cause	34		
upporting	$5 \ge 3.0$				—		= Total Cover	34		
	n a separate sheet))	um (plot size:	oody Vine Stratur
		nd Non-Vascular								
	vtic Vegetation ¹ (Ex	atic Hydrophytic	Problemati	F						
(piain)	yao vogotation (E)				1		= Total Cover	0		
	must be present, u	nd hydrology mus	nd wetland	of hydric soil an	Indicators of			Ū		
		nd hydrology mus	nd wetland	problematic.	disturbed or		- Total Cover			
			nd wetland Yes	problematic. tic				66	Horb Stratum	Bare Ground in F

SOIL								
Profile Descript	tion: (Describe to t Matrix	the depth i	needed to docume		ator or conf Features	irm the absen	ce of indicators.)	
(Inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/2	30	5GY3	70	D	М	Silt Loam	matrix has depleted to gley
6-10	10YR 4/2	100					Silt Loam	
10-16	10YR 4/2	90	5GY3	10	D	М	Silt Loam	depleting matrix but not as much as
								upper profile
					·			
					·			
Type: C=Conce	entration, D=Depleti	on, RM=Re	educed Matrix, CS=(Covered or C	Coated Sand	Grains.		² Location: PL=Pore Lining, M=Matrix.
			all LRRs, unles			Cran	Indic	ators for Problematic Hydric Soils ³ :
-	istosol (A1)				, Sandy Redox	(S5)		2 cm Muck (A10)
Hi	istic Epipedon (A2)				stripped Matr			Red Parent Material (TF2)
	lack Histic (A3)					/ Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12)
	ydrogen Sulfide (A4	t)				d Matrix (F2)		Other (explain in Remarks)
	epleted Below Dark	-	411)		Depleted Mat			
	hick Dark Surface (/	-	,		Redox Dark S	. ,		
	andy Mucky Mineral	-				k Surface (F7)		³ Indicators of hydrophytic vegetation and wetland
	andy Gleyed Matrix				Redox Depres			hydrology must be present, unless disturbed or problematic.
	ayer (if present)						1	·
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in not							•	
ype:)enth (inches) [,]								
Depth (inches): Remarks:							Hydric Soil Pres	sent? Yes <u>X</u> No
Depth (inches): Remarks:		<u> </u>					Hydric Soil Pres	sent? Yes <u>X</u> No
Depth (inches): Remarks: IYDROLOG Vetland Hydi	GY rology Indicator		uired; check all th	nat apply)			Hydric Soil Pre	sent? Yes X No
Depth (inches): Remarks: HYDROLOG Vetland Hydi Primary Indica	GY rology Indicator		uired; check all th	X W		J Leaves (B9) (Secondary Indicators (2 or more required)Water stained Leaves (B9)
Depth (inches): Remarks: HYDROLOG Vetland Hydu Primary Indica	SY rology Indicator ators (minimum c	of one req	uired; check all th	X W	Vater stainec , 2, 4A, and	. , .		Secondary Indicators (2 or more required)
Pepth (inches): Remarks: IYDROLOG Vetland Hydi Primary Indica Su X Hi	SY rology Indicator ators (minimum c urface Water (A1)	of one req	uired; check all th	X W 1,		4B)		Secondary Indicators (2 or more required) Water stained Leaves (B9)
Pepth (inches): Remarks: IYDROLOG Vetland Hydr Primary Indica St X Hi X X St	GY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2	of one req	uired; check all th	X W 1, S	, 2, 4A, and Salt Crust (B1	4B)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Appendix (inches): Remarks: AYDROLOG Vetland Hydu Primary Indica Su X Hi X Su X W	SY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2 aturation (A3)	of one req 2)	uired; check all th	X W 1, S A	, 2, 4A, and Salt Crust (B1 Aquatic Invert	4B) 11)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indica X Hi X Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa S	BY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1)	of one req 2)	uired; check all th	X W 1, S A H	, 2, 4A, and Salt Crust (B1 Aquatic Invert Iydrogen Sul	4B) 11) tebrates (B13) fide Odor (C1)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2)
Primary Indica X Hi X Sa X Sa X Sa X Sa X Sa X Sa X Sa X Sa	GY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B	of one req 2) B2)	uired; check all th	X W 1, S A H O	, 2, 4A, and Salt Crust (B1 Aquatic Invert Iydrogen Sul Dxidized Rhiz	4B) 11) tebrates (B13) fide Odor (C1)	Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery
A Comparison	BY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B rift Deposits (B3)	of one req 2) B2)	uired; check all th	X W 1, S A H O P R	, 2, 4A, and Salt Crust (B1 Aquatic Invert Aydrogen Sul Dxidized Rhiz Presence of F Recent Iron R	4B) Itebrates (B13) Ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
Primary Indica X Hi X Sa X Hi X Sa Di X Sa X Hi X Sa X Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa S	SY rology Indicator ators (minimum c urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B rift Deposits (B3) Igal Mat or Crust (B on Deposits (B5) urface Soil Cracks (of one req 2) B2) 4) (B6)		X W 1, A A H O P R R S	, 2 , 4A , and Salt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Stu	4B) (1) tebrates (B13) fide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Pepth (inches): Remarks: Remar	SY rology Indicator ators (minimum o urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B on Deposits (B5) urface Soil Cracks (undation Visible on	of one req 2) B2) 4) (B6) Aerial Ima	igery (B7)	X W 1, A A H O P R R S	, 2 , 4A , and Salt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Stu	4B) Itebrates (B13) Ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
AI	BY rology Indicator ators (minimum of urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) Igal Mat or Crust (B on Deposits (B5) urface Soil Cracks (undation Visible on parsely Vegetated (of one req 2) B2) 4) (B6) Aerial Ima	igery (B7)	X W 1, A A H O P R R S	, 2 , 4A , and Salt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Stu	4B) (1) tebrates (B13) fide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (Except MLRA g Living Roots (C3) C4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Arrimary Indica Primary Indica Primary Indica Primary Indica X Hi X Sa W Sa Di Comparison Sa Sa Sa Sa Sa Sa Sa Sa Sa Sa	SY rology Indicator ators (minimum of urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) lgal Mat or Crust (B on Deposits (B5) urface Soil Cracks (undation Visible on parsely Vegetated O ations: Present? Yes	of one req 2) B2) 4) (B6) Aerial Imag Concave Su	igery (B7) urface (B8) No <u>X</u> No	X W 1, S A H O P R S O Depth (in Depth (in	, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Stu Dther (Explain Dther (Explain nches):	4B) (11) tebrates (B13) (fide Odor (C1)) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks) 8	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
AI Comparison of the second s	BY rology Indicator ators (minimum of urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) lgal Mat or Crust (B on Deposits (B5) urface Soil Cracks (undation Visible on parsely Vegetated Of ations: Present? Yes ent? Yes	of one req 2) B2) 4) (B6) Aerial Ima Concave Su	igery (B7) urface (B8) No <u>X</u>	X W 1, S A H O P P R S O Depth (ii	, 2, 4A, and Salt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Stunted or Stu Dther (Explain Dther (Explain nches):	4B) Itebrates (B13) Ifide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks)	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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APPENDING APPENDING	BY rology Indicator ators (minimum of urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) lgal Mat or Crust (B- on Deposits (B5) urface Soil Cracks (undation Visible on parsely Vegetated Of ations: Present? Yes esent? Yes ent? Yes ent? Yes	bf one req 2) B2) 4) (B6) Aerial Ima Concave Su Concave Su X	igery (B7) urface (B8) No <u>X</u> No	X W 1, S A H O P R R S O Depth (ii Depth (ii Depth (ii	, 2, 4A, and Galt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Baunted or Str Dther (Explain nches): nches):	4B) 11) tebrates (B13) fide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks) 8 6	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
APPENDING APPENDING	BY rology Indicator ators (minimum of urface Water (A1) igh Water Table (A2 aturation (A3) /ater Marks (B1) ediment Deposits (B3) lgal Mat or Crust (B- on Deposits (B5) urface Soil Cracks (undation Visible on parsely Vegetated Of ations: Present? Yes esent? Yes ent? Yes ent? Yes	bf one req 2) B2) 4) (B6) Aerial Ima Concave Su Concave Su X	igery (B7) urface (B8) No <u>X</u> No <u>No</u>	X W 1, S A H O P R R S O Depth (ii Depth (ii Depth (ii	, 2, 4A, and Galt Crust (B1 Aquatic Invert Hydrogen Sul Dxidized Rhiz Presence of F Recent Iron R Baunted or Str Dther (Explain nches): nches):	4B) 11) tebrates (B13) fide Odor (C1) cospheres along Reduced Iron (C Reduction in Plo ressed Plants (n in Remarks) 8 6	Except MLRA g Living Roots (C3) (24) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) X Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
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LAND DETE						ISLINEUIUII	¢ <u>6338</u>	
	City/County:				Sampling Date	-	3/28/2018	
Palmberg					State:		Sampling Point:	34
SE/JT/CM/C	R	Section, To	wnship, Range:		Section	10, Township 6		
e, etc.:)			Local relief (cor	ncave, convex, n	ione):		Slope (%):	
LRR A	4	Lat:	46.028	81	Long:	-123.9078	Datum:	WGS84
	Gearhart Fir	ne Sandy Loai	n		NWI Clas	sification:	PFOC	
			Yes	x	No	(if no, ex	plain in Remarks)	
oil or Hy	/drology	significantly dist	urbed?	Are "Normal (Circumstance	es" present? (Y/N)	Y	
		• •		, explain any ans	swers in Rem	narks.)		
DINGS – Attac	ch site map s	showing san	nplina point	locations. t	ransects.	important fea	atures. etc.	
esent? Yes	X No				,			
Yes	No	Х			Yes		No X	
nt? Yes	No	X						
e scientific na				Т				-
	absolute % cover	Dominant Species?	Indicator Status	Dominance	Test work	sheet:		
30)		0490199 (Jialus	Number of Do	minant Speci	es		
,	60	х	FAC		•		3	(A)
	10		FACU	,	,		-	()
	10		FAC	Total Number	of Dominant			
				Species Acros	s All Strata:		5	(B)
	80	= Total Cover						
(plot size: 10)			Percent of Dor	minant Speci	es		
osa		х	FACU				60%	(A/B)
	10	Х	FAC					. ,
				Prevalence	Index Wor	ksheet:		
				Total % Cover	of	Multiply I	oy:	
				OBL Spe	ecies	x 1 =	= 0	
	50	= Total Cover						
5)								
)	50	Y	OBI		-			
itum								(B)
		X		Column		<u> </u>		(0)
				Prevaler	nce Index =B/	/A =	#DIV/0!	
				Hydrophytic	C Vegetatio	on Indicators:		
					1·	- Rapid Test for Hy	drophytic Vegetatio	n
	75	= Total Cover						
ot sizo:)							
)						-	()
				—				xnlain)
	0	= Total Cover		¹ Indicators of h				
					-		,	
					•			
ratum	25					Yes X	No	
	LRR / ditions on the site t oil or Hy oil or Hy oil or Hy OINGS - Attac asent? Yes Yes Yes t? Yes scientific nam scientific nam gscientific LRR A Gearhart Fir ditions on the site typical for this time oil or Hydrology oil or Hydrology oil or Hydrology DINGS - Attach site map set Sesent? Yes Yes No Yes No Yes No escientific names of plant: % cover % 30) 60 10 10 10 80 10 10 50 50 50 51 50 52 10 53 50 50 75 ot size:) 0 0	LRR A Lat: Gearhart Fine Sandy Loar ditions on the site typical for this time of year? oil or Hydrology significantly dist oil or Hydrology naturally problem DINGS – Attach site map showing sam asent? Yes No Yes X No X t? Yes No X escientific names of plants. Dominant Species? 30) 60 X escientific names of plants. Dominant Species? 30) 60 X 9 60 X 10 10 10 20 X 9 40 X 20 10 X 20 X 10 X 20 X <t< td=""><td>LRR A Lat: 46.021 Gearhart Fine Sandy Loam ditions on the site typical for this time of year? Yes oilor Hydrology</td><td>LRR A Lat: 46.0281 Gearhart Fine Sandy Loam ditions on the site typical for this time of year? Yes X oil or Hydrology </td><td>LRR A Lat: 46.0281 Long Gearhart Fine Sandy Loam NWI Class all or Hydrology significantly disturbed? Are "Normal Circumstance all or Hydrology naturally problematic? If needed, explain any answers in Ren DINGS - Attach site map showing sampling point locations, transects, seent? No X Yes No X Is Sampled Area within a Wetland? Yes Yes No X Is Sampled Area within a Wetland? Yes 12 Yes No X Indicator Yes No X FAC Number of Dominant Species? 30 60 X FAC Total Number of Dominant Species Across All Strata: 30 60 X FAC Total Number of Dominant Species Across All Strata: 10 FAC FAC Prevalence Index Wor Total % Cover of 20 X FAC FAC Species 10 X FAC FAC Species 10 X FAC Prevalence Index Wor Total % Cover of 20 X FAC FAC Species <!--</td--><td>LRR A Lat: 46.0281 Long: </td><td>LRR A Lat 46.0281 Long: -123.9078 Datum: Gearhart Fine Sandy Loam NW Classification: PFOC ditions on the site typical for this time of year? Yes X No (fine, explain in Remarks) all or Hydrology significantly didutbed? Are "Normal Circumstances" present? (YN) Y all or Hydrology inducators The explain in Remarks) Y DINGS - Attach site map showing sampling point locations, transects, important features, etc. sector Sector Solute Dominant Sector No X Yes No X Sector No X solutie Dominant Sector No X yes No X Recover Sector No X solutie Dominant Sector Sector</td></td></t<>	LRR A Lat: 46.021 Gearhart Fine Sandy Loam ditions on the site typical for this time of year? Yes oilor Hydrology	LRR A Lat: 46.0281 Gearhart Fine Sandy Loam ditions on the site typical for this time of year? Yes X oil or Hydrology	LRR A Lat: 46.0281 Long Gearhart Fine Sandy Loam NWI Class all or Hydrology significantly disturbed? Are "Normal Circumstance all or Hydrology naturally problematic? If needed, explain any answers in Ren DINGS - Attach site map showing sampling point locations, transects, seent? No X Yes No X Is Sampled Area within a Wetland? Yes Yes No X Is Sampled Area within a Wetland? Yes 12 Yes No X Indicator Yes No X FAC Number of Dominant Species? 30 60 X FAC Total Number of Dominant Species Across All Strata: 30 60 X FAC Total Number of Dominant Species Across All Strata: 10 FAC FAC Prevalence Index Wor Total % Cover of 20 X FAC FAC Species 10 X FAC FAC Species 10 X FAC Prevalence Index Wor Total % Cover of 20 X FAC FAC Species </td <td>LRR A Lat: 46.0281 Long: </td> <td>LRR A Lat 46.0281 Long: -123.9078 Datum: Gearhart Fine Sandy Loam NW Classification: PFOC ditions on the site typical for this time of year? Yes X No (fine, explain in Remarks) all or Hydrology significantly didutbed? Are "Normal Circumstances" present? (YN) Y all or Hydrology inducators The explain in Remarks) Y DINGS - Attach site map showing sampling point locations, transects, important features, etc. sector Sector Solute Dominant Sector No X Yes No X Sector No X solutie Dominant Sector No X yes No X Recover Sector No X solutie Dominant Sector Sector</td>	LRR A Lat: 46.0281 Long:	LRR A Lat 46.0281 Long: -123.9078 Datum: Gearhart Fine Sandy Loam NW Classification: PFOC ditions on the site typical for this time of year? Yes X No (fine, explain in Remarks) all or Hydrology significantly didutbed? Are "Normal Circumstances" present? (YN) Y all or Hydrology inducators The explain in Remarks) Y DINGS - Attach site map showing sampling point locations, transects, important features, etc. sector Sector Solute Dominant Sector No X Yes No X Sector No X solutie Dominant Sector No X yes No X Recover Sector No X solutie Dominant Sector Sector	

			PHS #	633	38			Sampling Point: 34
	ption: (Describe to	the depth	needed to docum			firm the absen	ce of indicators.)	
Depth	Matrix				Features	Loc ²		
(Inches)	Color (moist)	%	Color (moist)	%	Туре	LOC	Texture	Remarks
0-5	7.5YR 2.5/2	100		· ·			Loam	
5-19	10YR 2/2	100		· ·			Loamy Sand	
				· ·				
				· ·				
Type: C=Cond	centration, D=Depleti	on, RM=Re	educed Matrix, CS	=Covered or (Coated San	d Grains.		² Location: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appl	icable to	all LRRs, unles	ss otherwis	se noted.)		Indic	ators for Problematic Hydric Soils ³ :
	Histosol (A1)			S	andy Redo	x (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)			S	Stripped Mat	rix (S6)		Red Parent Material (TF2)
	Black Histic (A3)			L	.oamy Muck	y Mineral (F1) (e	except MLRA 1)	Very Shallow Dark Surface (TF12
	Hydrogen Sulfide (A4	4)		L	oamy Gleye	ed Matrix (F2)		Other (explain in Remarks)
	Depleted Below Dark	Surface (A	A11)		Depleted Ma	trix (F3)		
	Thick Dark Surface (A12)		F	Redox Dark	Surface (F6)		
	Sandy Mucky Minera	I (S1)		C	Depleted Da	rk Surface (F7)		³ Indicators of hydrophytic vegetation and wetla
	Sandy Gleyed Matrix	(S4)		F	Redox Depre	essions (F8)		hydrology must be present, unless disturbed o problematic.
estrictive	Layer (if present)	:						
уре:								
Depth (inches	:): 						Hydric Soil Pres	sent? Yes <u>No X</u>
Depth (inches Remarks:	·	·s:					Hydric Soil Pres	sent? Yes <u>No X</u>
Depth (inches Remarks: <u>HYDROLO</u> Vetland Hy	GY		uired; check all	that apply)			Hydric Soil Pres	sent? Yes <u>No X</u>
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1)	of one req	uired; check all	V		d Leaves (B9) (I		Secondary Indicators (2 or more require Water stained Leaves (B9)
Pepth (inches lemarks: IYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A)	of one req	uired; check all	V 1	, 2, 4A, and	I 4B)		Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
Pepth (inches temarks: IYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3)	of one req	uired; check all	v 1 s	, 2, 4A, and Salt Crust (B	I 4B) 11)		Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)
Depth (inches Remarks: IYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	of one req 2)	uired; check all	V 1 S	, 2, 4A, and Salt Crust (B Aquatic Inve	1 4B) 11) rtebrates (B13)		Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B	of one req 2)	uired; check all	V 1 S A	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su	1 4B) 11) rtebrates (B13) Ilfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator Surface Water (A1) High Water Table (A3 Saturation (A3) Water Marks (B1) Sediment Deposits (B	of one req 2) 32)	uired; check all	V 1 S A F C	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi	1 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along	Except MLRA	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2)
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B	of one req 2) 32)	uired; check all	V 1 	, 2, 4A, and Galt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of	1 4B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C	Except MLRA g Living Roots (C3) C4)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3)
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B1) Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	of one req 2) 32) 4)	uired; check all	V 1 	, 2 , 4A , and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron F	1 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wwed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5)
Primary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (of one req 2) 32) 4) (B6)		V 1 	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or S	1 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wwed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B1) Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	of one req 2) 32) 4) (B6) Aerial Ima	gery (B7)	V 1 	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or S	1 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo	Except MLRA g Living Roots (C3) C4) wwed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5)
Depth (inches Remarks: HYDROLO Vetland Hy Primary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (of one req 2) 32) 4) (B6) Aerial Ima	gery (B7)	V 1 	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or S	1 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wwed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
Depth (inches Remarks: HYDROLO Vetland Hy Primary India Primary India	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations:	of one req 2) 32) 4) (B6) Aerial Ima	gery (B7)	V 1 	, 2 , 4A , and Galt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Expla	1 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wwed Soils (C6)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
Depth (inches Remarks: HYDROLO Netland Hy Primary India Primary India Field Obser Surface Water	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes	of one req 2) 32) 4) (B6) Aerial Ima	gery (B7) urface (B8)	V 1 	, 2 , 4A , and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or S Dther (Expla	1 4B) 11) Ifide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (I	Except MLRA g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A
Depth (inches Remarks: HYDROLO Vetland Hyd Primary India Primary India Field Obser Surface Water Vater Table P Saturation Pre	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes	of one req 2) 32) 4) (B6) Aerial Ima	gery (B7) urface (B8) No <u>X</u>	V 1 	, 2, 4A, and Salt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Dresence of Recent Iron F Stunted or Si Dther (Expla inches):	I 4B) 11) rtebrates (B13) Ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (I in in Remarks)	Except MLRA g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A)	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)
Pepth (inches Remarks: HYDROLO Vetland Hyd Primary India Primary India Surface Water Surface Water Vater Table P Saturation Pre includes capillar	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes	of one req 2) 32) 4) Aerial Ima Concave So	gery (B7) urface (B8) No <u>X</u> No <u>X</u>	V 1 S A F C C P F S C C Depth (i Depth (i	, 2, 4A, and Galt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Expla inches):	14B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (l in in Remarks) >19 >19 >19	Except MLRA g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)
Pepth (inches Remarks: HYDROLO Vetland Hyd Primary India Primary India Surface Water Surface Water Vater Table P Saturation Pre includes capillar	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes sent? Yes sent? Yes	of one req 2) 32) 4) Aerial Ima Concave So	gery (B7) urface (B8) No <u>X</u> No <u>X</u>	V 1 S A F C C P F S C C Depth (i Depth (i	, 2, 4A, and Galt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Expla inches):	14B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (l in in Remarks) >19 >19 >19	Except MLRA g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)
Pepth (inches Remarks: HYDROLO Vetland Hyd Primary India Primary India Surface Water Surface Water Vater Table P Saturation Pre includes capillar	GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes sent? Yes sent? Yes	of one req 2) 32) 4) Aerial Ima Concave So	gery (B7) urface (B8) No <u>X</u> No <u>X</u>	V 1 S A F C C P F S C C Depth (i Depth (i	, 2, 4A, and Galt Crust (B Aquatic Inver Hydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Expla inches):	14B) 11) rtebrates (B13) ilfide Odor (C1) zospheres along Reduced Iron (C Reduction in Plo tressed Plants (l in in Remarks) >19 >19 >19	Except MLRA g Living Roots (C3) C4) wed Soils (C6) D1) (LRR A) Wetland Hyd	Secondary Indicators (2 or more require Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imag Geomorphic Position (D2) Shallow Aquitard (D3) Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A Frost-Heave Hummocks (D7)

6338	PHS # ast Region	eys, and Coast	ains, Vallevs	ern Mount	RM - Weste	N DATA FOI		DETER	WETLAND	
/2018	-				City/County: Gearhart/Clatsop			g Propert		roject/Site:
35	Sampling Point:	OR	State: OI					erg	Bill Palmb	plicant/Owner:
	6N, Range 10W	10, Township 6N,	Section 10,		wnship, Range:	Section, To		JT/CM/CF	SE/	vestigator(s):
	Slope (%):		, none):	oncave, convex	Local relief (co	-			e, terrace, etc.:)	andform (hillslope
WGS84	Datum:	-123.9078	Long:	281	46.02	Lat:		LRR A		ubregion (LRR):
	PFOC	sification:	NWI Classifica		n	- ne Sandy Loar	earhart Fir		me:	oil Map Unit Nam
	explain in Remarks)	(if no, expla	No	Х	Yes	e of year?	al for this tim	n the site typ	ologic conditions o	re climatic/hydrolo
) Y	s" present? (Y/N)	al Circumstances" pr	Are "Norma	urbed?	significantly dist	logy	or Hyd	Soil	re vegetation
		arks.)	answers in Remarks	d, explain any a	natic? If needed	- naturally probler	logy	or Hyd	Soil	re vegetation
	eatures, etc.	important featu	transects, im	t locations,	npling point	showing san	site map s		OF FINDINGS	UMMARY OF
				rea within	Is Sampled A		X No	Yes	tation Present?	ydrophytic Vegeta
	No	<u> </u>	Yes X		a Wetla		X No	Yes	nt?	ydric Soil Present
							X No	Yes	gy Present?	/etland Hydrology
										emarks:
						<u> </u>	s of plant	tific nom	N - Use scien	
		sheet:	ce Test workshe	Dominand	Indicator	5. Dominant	absolute		N - 036 SCIEII	
					Status	Species?	% cover			
		es	Dominant Species	Number of [)	plot size:	r <u>ee Stratum</u> (pl
(A)	3	AC:	L, FACW, or FAC:	That are OB						
				-						
(B)	3		er of Dominant	-						3
(D)	<u>ی</u>		oss All Strata:	- Species Aci		= Total Cover	0			+
								40	cotum (1)	anling/Chrub Strai
(A/B)	100%		Dominant Species		FAC	v	25	e: 10		apling/Shrub Stra
(A/D)	100 %	AC:	L, FACW, or FAC:		FAC	<u> </u>	10			Lonicera inv
		ksheet:	e Index Worksh	Prevalenc	FAC		3			Rubus arme
	/ by:	Multiply by:	ver of	- Total % Cov						1
	= 0	x 1 =	Species							5
	2 = 0	x 2 =	species	FACW		= Total Cover	38			
	-	x 3 =	Species					_		
		x 4 =	Species			v		5)	plot size:	
(D)		x 5 =	Species	-	OBL FAC	<u> </u>	80 10		,	Carex obnu
(B)		0 (A)	n Totals 0	- Colum	FAC		5			2 Athyrium an 3 Polystichum
	#DIV/0!	A = # [lence Index =B/A =	- Preva	1400				in mantani	4
				-						5
		n Indicators:	tic Vegetation Ir	Hydrophy						3
ı	ydrophytic Vegetation	Rapid Test for Hydro	1- Rap							7
		Dominance Test is >		-						3
		Prevalence Index is ≤		_		= Total Cover	95			
		Morphological Adapta ata in Remarks or on a		-					tum (plot size:	oody Vine Stratu
)		Wetland Non-Vascul							<u>uuu</u> (piut size.	oody vine Stratu
xplain)		oblematic Hydrophyti		-						
		l wetland hydrology m		¹ Indicators o		= Total Cover	0			-
111000	gy maor bo procom. c	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-							
111035	gy maet be procent, t		problematic.							
		Yes X	tic	Hydrophy Vegetatio				5	Horb Stration	6 Bare Ground in I

SOIL			PHS #	633	8			Sampling Point: 35
rofile Descri	ption: (Describe to	the depth	needed to docume	ent the indica	ator or con	firm the absenc	e of indicators.)	
Depth	Matrix				Features	2		
(Inches)	Color (moist)	%	Color (moist)	%	Туре'	Loc ²	Texture	Remarks
0-11	10YR 2/2	100					Sand	Mucky
11-14	7.5YR2.5/1	98	7.5YR 3/4	2	С	M	Sand	
				·				
				·				
				. <u> </u>				
ype: C=Conc	centration, D=Depleti	on, RM=Re	educed Matrix, CS=	Covered or C	Coated San	d Grains.		² Location: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators: (Appl	icable to	all LRRs, unles	s otherwis	e noted.))	Indic	ators for Problematic Hydric Soils ³ :
-	Histosol (A1)			S	andy Redo	x (S5)		2 cm Muck (A10)
	Histic Epipedon (A2)				tripped Mat			Red Parent Material (TF2)
	Black Histic (A3)					xy Mineral (F1) (e)	cept MLRA 1)	Very Shallow Dark Surface (TF12)
	Hydrogen Sulfide (A4	4 \				ed Matrix (F2)		Other (explain in Remarks)
		-	A 4 4 \					
	Depleted Below Dark		411)		epleted Ma			
	Thick Dark Surface (/	-				Surface (F6)		³ Indicators of hydrophytic vegetation and wetland
	Sandy Mucky Minera				-	rk Surface (F7)		hydrology must be present, unless disturbed or
	Sandy Gleyed Matrix	(S4)		ĸ	edox Depre.	essions (F8)		problematic.
estrictive I	Layer (if present)	:						
уре:								
⁻ype: Depth (inches	·):						Hydric Soil Pres	sent? Yes <u>X</u> No
•••	i):						Hydric Soil Pre	sent? Yes <u>X</u> No
Depth (inches Remarks:	onded for at leas	t 2 weeks	s. Land form the	at concentr	rated wat		Hydric Soil Pres	sent? Yes <u>X</u> No
Depth (inches Remarks:	·	it 2 weeks	s. Land form the	at concentr	rated wat		Hydric Soil Pre	sent? Yes <u>X</u> No
Depth (inches Remarks:	·	it 2 week	s. Land form tha	at concentr	rated wat		Hydric Soil Pre	sent? Yes <u>X</u> No
Depth (inches Remarks: Saturated/Po	onded for at leas	it 2 week	s. Land form the	at concenti	rated wat		Hydric Soil Pre	sent? Yes <u>X</u> No
Depth (inches Remarks: Saturated/Po	onded for at leas		s. Land form the	at concenti	rated wat		Hydric Soil Pre	sent? Yes <u>X</u> No
epth (inches lemarks: saturated/Po iYDROLO Vetland Hyd	onded for at leas	rs:			rated wat		Hydric Soil Pre	sent? Yes X No Secondary Indicators (2 or more required)
Depth (inches temarks: Saturated/Po HYDROLO Vetland Hyo Primary Indic	onded for at leas GY drology Indicator	rs:		hat apply)				
Depth (inches Remarks: Saturated/Po HYDROLO Vetland Hyd Primary Indic X	onded for at leas GY drology Indicator cators (minimum c	rs: of one req		hat apply)		ter.		Secondary Indicators (2 or more required)
epth (inches lemarks: Saturated/Po Vetland Hyd Primary Indio X	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A2	rs: of one req		hat apply) W 1,	Vater staine , 2, 4A, and	ter. ed Leaves (B9) (E d 4B)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B)
temarks: Saturated/Po HYDROLO Vetland Hyd Primary Indic	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A3)	rs: of one req		hat apply) W 1, S;	Vater staine , 2 , 4A , and salt Crust (B	er. ed Leaves (B9) (E 1 4B) 311)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10)
Appendix (inches) Appendix (inc	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	r s: of one req 2)		:hat apply) W 1, 	Vater staine , 2 , 4A , and Galt Crust (B Aquatic Inver	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13)		Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inches Remarks: Saturated/Po Primary Indic X	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B	r s: of one req 2)		that apply) W 1, A A	Vater staine , 2, 4A, and alt Crust (B .quatic Inver Iydrogen Su	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1)	Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery
Primary Indic	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	r s: of one req 2) B2)		that apply) W S: Ar O	Vater staine , 2, 4A, and Galt Crust (B Quatic Inver lydrogen Su Dxidized Rhi	ter. ed Leaves (B9) (E t 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along	Except MLRA	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2)
Pepth (inches Remarks: Saturated/Po Vetland Hyd Primary Indic X S S S S S S S S S S S S S S S S S S	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	r s: of one req 2) B2)		that apply) 	Vater staine , 2, 4A, and alt Crust (B aquatic Inver lydrogen Su Dxidized Rhi Presence of	ter. ed Leaves (B9) (E 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C-	Except MLRA Living Roots (C3) 4)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3)
Arimary Indic	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B1) Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5)	r s: 2) B2) B2)		that apply) 	Vater staine , 2, 4A, and alt Crust (B quatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron F	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov	Except MLRA Living Roots (C3) 4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5)
Depth (inches Remarks: Saturated/Po Vetland Hyd Primary Indic X S S S S S S S S S S S S S S S S S S S	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (r s: 2) B2) (B6)	uired; check all t	ihat apply) 	Vater staine , 2, 4A, and alt Crust (B aquatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plow tressed Plants (C	Except MLRA Living Roots (C3) 4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Arring Primary India	onded for at leas GY drology Indicator cators (minimum c Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (r s: 2) B2) (4) (B6) (Aerial Ima	juired; check all t	ihat apply) 	Vater staine , 2, 4A, and alt Crust (B aquatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plow tressed Plants (C	Except MLRA Living Roots (C3) 4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Arring Primary India	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (r s: 2) B2) (4) (B6) (Aerial Ima	juired; check all t	ihat apply) 	Vater staine , 2, 4A, and alt Crust (B aquatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plow tressed Plants (C	Except MLRA Living Roots (C3) 4) wed Soils (C6)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Primary India	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes	rs: of one req 2) B2) 44) (B6) o Aerial Ima Concave Su	juired; check all t ngery (B7) urface (B8)	hat apply) W 1, A A P P R S S O	Vater staine , 2, 4A, and att Crust (B lydrogen Su lydrogen Su l	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (E in in Remarks)	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Pepth (inches Remarks: Saturated/Po Vetland Hyd Primary Indic X Surface Water Vater Table Po	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes sent? Yes	rs: of one req 2) B2) 4) (B6) Aerial Ima Concave Su X	uired; check all t igery (B7) urface (B8) No No	that apply) W 1, Si A(H 0 Pi R Si Si O Depth (ir Depth (ir	Vater staine , 2, 4A, and salt Crust (B quatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Expla nches):	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C Reduction in Plov itressed Plants (D in in Remarks) 8 >14	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
Pepth (inches Remarks: Saturated/Perimary Indice Primary Indice X Surface Water Vater Table Per Saturation Press Includes capillar	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes sent? Yes	rs: of one req 2) B2) 4) (B6) 0 Aerial Ima Concave Su X X	uired; check all t ngery (B7) urface (B8) No No Xo No X	hat apply) W 1, Si Ai Pi Pi Pi R Si O Depth (ir Depth (ir Depth (ir	Vater staine , 2 , 4A , and Galt Crust (B Aquatic Inver lydrogen Su Dividized Rhi Dividized Rhi Dividized Rhi Presence of Recent Iron R Stunted or Si Dividized Rhi Dividized Rhi Di	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (D in in Remarks) 8 >14 Surface	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
Pepth (inches Remarks: Saturated/Perimary Indice Primary Indice X Surface Water Vater Table Per Saturation Press Includes capillar	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes sent? Yes sent? Yes	rs: of one req 2) B2) 4) (B6) 0 Aerial Ima Concave Su X X	uired; check all t ngery (B7) urface (B8) No No Xo No X	hat apply) W 1, Si Ai Pi Pi Pi R Si O Depth (ir Depth (ir Depth (ir	Vater staine , 2 , 4A , and Galt Crust (B Aquatic Inver lydrogen Su Dividized Rhi Dividized Rhi Dividized Rhi Presence of Recent Iron R Stunted or Si Dividized Rhi Dividized Rhi Di	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (D in in Remarks) 8 >14 Surface	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
Pepth (inches Remarks: Saturated/Perimary Indice Primary Indice X Surface Water Vater Table Per Saturation Press Includes capillar	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes sent? Yes sent? Yes	rs: of one req 2) B2) 4) (B6) 0 Aerial Ima Concave Su X X	uired; check all t ngery (B7) urface (B8) No No Xo No X	hat apply) W 1, Si Ai Pi Pi Pi R Si O Depth (ir Depth (ir Depth (ir	Vater staine , 2 , 4A , and Galt Crust (B Aquatic Inver lydrogen Su Dividized Rhi Dividized Rhi Dividized Rhi Presence of Recent Iron R Stunted or Si Dividized Rhi Dividized Rhi Di	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (D in in Remarks) 8 >14 Surface	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
Pepth (inches Remarks: Saturated/Perimary Indice Primary Indice X Surface Water Vater Table Per Saturation Press Includes capillar	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes sent? Yes sent? Yes	rs: of one req 2) B2) 4) (B6) 0 Aerial Ima Concave Su X X	uired; check all t ngery (B7) urface (B8) No No Xo No X	hat apply) W 1, Si Ai Pi Pi Pi R Si O Depth (ir Depth (ir Depth (ir	Vater staine , 2 , 4A , and Galt Crust (B Aquatic Inver lydrogen Su Dividized Rhi Dividized Rhi Dividized Rhi Presence of Recent Iron R Stunted or Si Dividized Rhi Dividized Rhi Di	ter. ed Leaves (B9) (E d 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (D in in Remarks) 8 >14 Surface	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A)	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?
Pepth (inches Remarks: Saturated/Perimary Indice Primary Indice X Sufface Vater Surface Water Vater Table Per Saturation Presencludes capillar Describe Reco	onded for at leas GY drology Indicator cators (minimum of Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (vations: Present? Yes resent? Yes res resent? Yes res resent? Yes res resent? Yes rese	rs: of one req 2) B2) 44) (B6) 0 Aerial Ima Concave Su auge, moni	uired; check all t ngery (B7) urface (B8) No No No itoring well, aerial pl	hat apply) W 1, Si Ai Pi Pi Pi R Si O Depth (ir Depth (ir Depth (ir Depth (ir	Vater staine , 2, 4A, and Salt Crust (B Aquatic Inver lydrogen Su Dxidized Rhi Presence of Recent Iron R Stunted or Si Dther (Explain nches): nches): us inspectic	ter. ed Leaves (B9) (E 1 4B) 311) rtebrates (B13) ulfide Odor (C1) izospheres along Reduced Iron (C- Reduction in Plov tressed Plants (C in in Remarks) 8 >14 Surface ons), if available:	Except MLRA Living Roots (C3) 4) wed Soils (C6) 01) (LRR A) Wetland Hyd	Secondary Indicators (2 or more required) Water stained Leaves (B9) (MLRA1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery X Geomorphic Position (D2) Shallow Aquitard (D3) X Fac-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) Irology Present?

,	WETLAND	DETER		N DATA FOI	RM - Weste	rn Mounta	ins. Vall	evs. and	I Coast	PHS #	6338	
Project/Site:	Palmberg			City/County:		rhart/Clatsop					28/2018	
pplicant/Owner:	Bill Palmbe	• •	<u> </u>	,				State: OR			36	
vestigator(s):	-	JT/CM/C	R	Section To	wnship, Range:			10, Township 6N, Ran		mpling Point:		
andform (hillslope,		<u>e 17 e 117 e</u>	Slope			ncave, convex, n				Slope (%):	100	
ubregion (LRR):	1011000, 010)	LRR A		Lat:	46.027		Long:	-123.9	9083	Datum:	WGS84	
				- oamy Fine Sa		<u> </u>	· -	sification:		PFOC	110004	
oil Map Unit Name re climatic/hydrolo				,	Yes	x	No		f no oveloie			
	•	-		•				·	-	in Remarks)		
re vegetation		-	drology	_		Are "Normal (•	(Y/N)	Y		
re vegetation	Soil	_ or Hy	drology	_ naturally probler	matic? If needed	, explain any ans	swers in Ren	harks.)				
UMMARY OF		– Attac	h site map	showing san	npling point	locations, t	ransects	, importa	nt featur	es, etc.		
ydrophytic Vegetat	tion Present?	Yes	X No									
ydric Soil Present?	?	Yes	No	Х	Is Sampled Ar a Wetlar		Yes		No	х		
/etland Hydrology	Present?	Yes	No	x	u motiui		_					
emarks:												
5and.												
EGETATION	- Use scient	tific nar	nes of plant	s.								
			absolute	Dominant	Indicator	Dominance	Test work	sheet:				
ree Stratum (plo	ot size.	30)	% cover	Species?	Status	Number of D-	minont 9	vice				
r <u>ee Stratum</u> (pic 1 Alnus rubra)	100	x	FAC	Number of Do That are OBL,				3	(A)	
Picea sitcher	nsis		5		FAC	That are UDL,			•		(~)	
Tsuga sp.			5		(FACU)	Total Number	of Dominant					
<u> </u>					(1100)	Species Acros				1	(B)	
			110	= Total Cover		'						
apling/Shrub Strat	um (plot size	: 15)			Percent of Dor	minant Snoc	ios				
Rubus armei			_ [/] 30	x	FAC	That are OBL,			7!	5%	(A/B)	
						maraio obe,					(,,,,,)	
3						Prevalence	Index Wo	rksheet:				
1						Total % Cover	of	M	lultiply by:			
5						OBL Spe	ecies	_	x 1 =	0		
			30	= Total Cover		FACW sp	pecies		x 2 =	0		
						FAC Spe	ecies		x 3 =	0		
	ot size:	5)				FACU Sp			x 4 =	0		
Polystichum			20	<u> </u>	FACU	UPL Spe			x 5 =	0		
2 Unidentified	grass		10	<u> </u>	(FAC)	Column 1	otals	0 (A	4)	0	(B)	
3 4						Drevial	noo Index -D	/^ -	#DI	V/0!		
 5						Prevaler	nce Index =B	/A -	וט#	v/U:		
) 						Hydrophytic	c Vegetativ	on Indicat	ors:			
,							-			nytic Vegetatio	n	
3								- Dominance				
			30	= Total Cover		-		-Prevalence				
							4	-Morphologi	cal Adaptati	ons ¹ (provide s	supporting	
oody Vine Stratun	<u>m</u> (plot size:)							separate sheet	i)	
								- Wetland N				
						1				Vegetation ¹ (E		
			0	= Total Cover		¹ Indicators of h disturbed or pr	-	d wetland hy	/drology mu	st be present,	unless	
						Hydrophytic						
	lerb Stratum	7	70			Vegetation		Yes	х	No		
6 Bare Ground in H												

Bare ground percentage is actually covered in moss.

Depth (Inches) 0-16 Type: C=Concen Hydric Soil Inc His His Bla	ion: (Describe to th Matrix Color (moist) 10YR 3/2	% 100	Color (moist)	ent the indicator or co Redox Features % Type ¹	Loc ²	Texture Silt Loam	Remar	ks
(Inches) 0-16 Type: C=Concen Hydric Soil Inc His His Bla	Color (moist) 10YR 3/2 	100	Color (moist)		Loc ²		Remar	ks
0-16	10YR 3/2	100						KS
Type: C=Concen Hydric Soil Inc His Bla	ntration, D=Depletio							
Hydric Soil Inc His His Bla	dicators: (Applic				- <u> </u>			
Hydric Soil Inc His His Bla	dicators: (Applic							
Hydric Soil Inc His His Bla	dicators: (Applic							
Hydric Soil Inc His His Bla	dicators: (Applic							
Hydric Soil Inc His His Bla	dicators: (Applic							
Hydric Soil Inc His His Bla	dicators: (Applio							
Hydric Soil Inc His His Bla	dicators: (Applio							
Hydric Soil Inc His His Bla	dicators: (Applio						21	
His His Bla						Indica	² Location: PL=Pore Lining, I ators for Problematic Hy	
His Bla				Sandy Red		indict	2 cm Muck (A1	
Bla	stic Epipedon (A2)			Stripped M			Red Parent Ma	
	ack Histic (A3)				cky Mineral (F1) (excent MI RA 1)		Dark Surface (TF12)
1190	drogen Sulfide (A4)				yed Matrix (F2)		Other (explain	
			\ 1 1 \					in Remarks)
	epleted Below Dark	-	(11)	Depleted M	k Surface (F6)			
	ick Dark Surface (A	-					³ Indicators of hydrophytic ve	getation and wetland
	ndy Mucky Mineral ndy Gleyed Matrix (Dark Surface (F7) Diressions (F8)		hydrology must be present, problemat	
		34)			Tessions (Fo)	T	problemat	IC.
	yer (if present):							
Type:								
Depth (inches): -						Hydric Soil Pres	ent? Yes	<u>No X</u>
HYDROLOG Wetland Hydro	Y ology Indicators	:						
Primary Indicat	tors (minimum of	one req	uired; check all t	hat apply)			Secondary Indicators (2	or more required)
Sur	rface Water (A1)				ned Leaves (B9) ((Except MLRA	Water stained	
Hig	gh Water Table (A2))		1, 2, 4A, ar	1d 4B)		(MLRA1, 2, 4	A, and 4B)
Sat	turation (A3)			Salt Crust	(B11)		Drainage Patte	erns (B10)
Wa	ater Marks (B1)			Aquatic Inv	vertebrates (B13)		Dry-Season W	ater Table (C2)
Sec	diment Deposits (B	2)		Hydrogen S	Sulfide Odor (C1)	1	Saturation Visi	ible on Aerial Imagery (0
	ift Deposits (B3)					ng Living Roots (C3)	Geomorphic P	
0	gal Mat or Crust (B4)			of Reduced Iron (0	,	Shallow Aquita	
	n Deposits (B5)				n Reduction in Plo	()	Fac-Neutral Te	
	rface Soil Cracks (E				Stressed Plants ((D1) (LRR A)		ounds (D6) (LRR A)
	undation Visible on A arsely Vegetated Co			Other (Exp	lain in Remarks)		Frost-Heave H	lummocks (D7)
Field Observa		Silcave St						
Surface Water Pr			No X	Depth (inches):				
Nater Table Pres	-		No X	Depth (inches):	>16	Wetland Hvd	rology Present?	
	-		No X	Depth (inches):	>16	Wettand Hyd	Yes	No X
				Deptil (inches).	- 10		103	
Saturation Preser includes capillary fr	ed Data (stream dai	uge, monit	toring well, aerial pł	hotos, previous inspec	tions), if available			
includes capillary fr								
includes capillary fr								
includes capillary fr	(3							
includes capillary fr								

,			RMINATIO		RM - Weste	rn Mountai	ins Val	levs and	l Coast I	PHS #	6338
Project/Site:	Palmber			City/County:		rhart/Clatsop		Samplir		-	8/2018
pplicant/Owner:	Bill Palmb		<u> </u>			•	State:	OR	-	mpling Point:	37
vestigator(s):	SE/	JT/CM/C	R	Section, To	wnship, Range:		Sectior	n 10, Town	ship 6N, R	ange 10W	
ndform (hillslope,			Depressi	on	Local relief (cor	ncave, convex, n			•	Slope (%):	
bregion (LRR):		LRR A	4	Lat:	46.027	79	Long:	-123.	9083	Datum:	WGS84
il Map Unit Name	e:		Warrenton	 Loamy Fine Sa	nd		NWI Cla	ssification:		PFOC	
e climatic/hydrolo		n the site t		-	Yes	х	No	(i	f no, explain	in Remarks)	
e vegetation	Soil	or Hy	/drology	significantly dist	urbed?	Are "Normal C	- Circumstanc	es" present?	(Y/N)	Y	
e vegetation	Soil	or Hy	vdrology	naturally problem	matic? If needed	, explain any ans	wers in Re	marks.)			
JMMARY OF	FINDINGS	– Attac	ch site map	showing san	npling point	locations, ti	ransects	, importa	nt feature	es, etc.	
drophytic Vegeta	tion Present?	Yes	X No	0							
dric Soil Present?	?	Yes	X No		Is Sampled Ar a Wetlar		Yes	x	No		
etland Hydrology	Present?	Yes	X No	0			-				
marks:											
	<u></u>										
GETATION	- USE SCIEN	TITIC Nai	mes of plan absolute	Dominant	Indicator	Dominance	Test wor	ksheet:			
			% cover	Species?	Status	Dominance	iest wor	NOTICEL.			
<u>e Stratum</u> (plo	ot size:	30)				Number of Dor	minant Spe	cies			
Alnus rubra			50	X	FAC	That are OBL,	FACW, or I	FAC:	2	2	(A)
						Total Number					
						Species Acros	s All Strata:		3	3	(B)
			50	= Total Cover							
oling/Shrub Strat	tum (plot size	e: 20)			Percent of Dor					
Oemleria cer	rasiformis		5	<u> </u>	FACU	That are OBL,	FACW, or	FAC:	67	'%	(A/B)
						Desvelopes					
						Prevalence			kultimlur hur		
						Total % Cover OBL Spe		<u>IV</u>	lultiply by: x 1 =	. 0	
			5	= Total Cover		FACW sp	-		x 2 =	0	
						FAC Spe	-		x 3 =	0	
<u>b Stratum</u> (plo	ot size:	20))			FACU Sp	ecies		x 4 =	0	
Carex obnup	ota		60	X	OBL	UPL Spe	ecies		x 5 =	0	
						Column T	otals	0 (/	A)	0	(B)
					. <u> </u>	Prevalen	ice Index =E	3/A =	#DI	V/0!	
						التربيع يرمينا والمراجع	Voret-"	المعا مم			
						Hydrophytic	-			iytic Vegetatio	n
								2- Dominance			n
			60	= Total Cover				3-Prevalence			
										ons ¹ (provide s	supporting
ody Vine Stratur	<u>m</u> (plot size:)					data in Rema	rks or on a s	eparate sheet	t)
								5- Wetland N	on-Vascular	Plants ¹	
						I				√egetation ¹ (E	
			0	= Total Cover		¹ Indicators of h		nd wetland h	drology mus	st be present,	unless
						disturbed or pr Hydrophytic					
	lark Ctratum					Vegetation	,	Yes	х	No	
Bare Ground in ⊢	Terb Stratum					vegetation					

Plot size for herbaceus and shrub layer was increased to 20 foot radius to encompass typical conditions in this area.

SOIL			PHS #	6338			Sampling Point:	37
Profile Descri	ption: (Describe to	the depth	needed to docum	ent the indicator or co	firm the absen	ce of indicators.)		
Depth	Matrix		- · · · · · · ·	Redox Features	. 2			
(Inches)	Color (moist)	%	Color (moist)	% Type'	Loc ²	Texture	Remarks	
0-12	10YR 2/1	100		·		Silt Loam		
								<u> </u>
				,				
¹ Type: C=Con	centration, D=Deplet	ion, RM=R	educed Matrix, CS:	-Covered or Coated Sar	d Grains.		² Location: PL=Pore Lining, M=Ma	atrix.
Hydric Soil	Indicators: (App	licable to	all LRRs, unles	s otherwise noted.		Indica	ators for Problematic Hydric	Soils ³ :
	Histosol (A1)			Sandy Redo	x (S5)		2 cm Muck (A10)	
	Histic Epipedon (A2))		Stripped Ma	trix (S6)		Red Parent Materia	l (TF2)
	Black Histic (A3)			Loamy Much	(F1) (except MLRA 1)	Very Shallow Dark	Surface (TF12)
	Hydrogen Sulfide (A	4)		Loamy Glev	ed Matrix (F2)		Other (explain in Re	
	Depleted Below Dar	-	A11)	Depleted Ma				,
_	Thick Dark Surface				Surface (F6)			
	Sandy Mucky Minera	. ,			ark Surface (F7)		³ Indicators of hydrophytic vegetat	on and wetland
							hydrology must be present, unles	ss disturbed or
	Sandy Gleyed Matrix			Redox Depi	essions (F8)	1	problematic.	
Restrictive	Layer (if present):						
Туре:								
Depth (inches	s):					Hydric Soil Pres	sent? Yes X N	o
HYDROLO								
-	drology Indicato							
Primary Indi	cators (minimum	of one rec	uired; check all				Secondary Indicators (2 or r	nore required)
	Surface Water (A1)				ed Leaves (B9) (Except MLRA	Water stained Leav	
	High Water Table (A	.2)		1, 2, 4A, and	а 4 В)		(MLRA1, 2, 4A, an	a 4B)
<u> </u>	Saturation (A3)			Salt Crust (E	311)		Drainage Patterns (B10)
	Water Marks (B1)			·	rtebrates (B13)		Dry-Season Water	· · ·
	Sediment Deposits (B2)			ulfide Odor (C1)			n Aerial Imagery (C9)
	Drift Deposits (B3)					g Living Roots (C3)	X Geomorphic Positio	n (D2)
	Algal Mat or Crust (E	34)			Reduced Iron (C	,	Shallow Aquitard (D	
	Iron Deposits (B5)				Reduction in Plo	. ,	X Fac-Neutral Test (D	-
	Surface Soil Cracks				itressed Plants (D1) (LRR A)	Raised Ant Mounds	
	Inundation Visible or			Other (Expla	ain in Remarks)		Frost-Heave Humm	ocks (D7)
	Sparsely Vegetated	Concave S	urface (B8)					
Field Obser	vations:							
Surface Water	Present? Yes	<u>X</u>	No	Depth (inches):	2			
Water Table P	resent? Yes	<u>X</u>	No	Depth (inches):	0	Wetland Hyd	rology Present?	
Saturation Pre (includes capillar		X	No	Depth (inches):	0		Yes <u>X</u> N	o
		auge, mon	itoring well, aerial p	hotos, previous inspecti	ons), if available	:		
			0 / 1		,,			
Remarks:								

Appendix C

Site Photos





Photo A:

View to the east of Wetland B from the northwest corner of the study area.

(Photo taken: March 28, 2018)

Photo B:

View to the southwest. Photos shows the forested and shrub community typical of Wetland B.

(Photo taken: March 28, 2018)



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Photo C:

View to the northeast across the northern, herbaceous portion of Wetland B. Photo includes the north end of the pond in the background.

(Photo taken: December 11, 2017)

Photo D:

View to south across the east-central portion of Wetland B. Pond lies to the east (left).

(Photo taken: December 11, 2017)



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Photo E:

View to the southeast. Shows the character of the south-central portion of Wetland B.

(Photo taken: March 28, 2018)

Photo F:

View to the southwest. Shows the transition from herbaceous to forested conditions along the east side of Wetland B.

(Photo taken: March 28, 2018)



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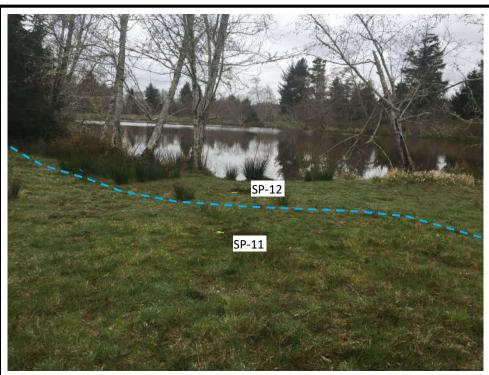


Photo G:

View to the north east. Foreground includes herbaceous upland (Sample point 11), which transitions to herbaceous wetland along the pond edge.

(Photo taken: March 28, 2018)

Photo H:

View to the east along the roadside ditch north of Pacific Way that serves as the outlet channel for the onsite pond.

(Photo taken: March 28, 2018)



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Photo I:

View to the north. Includes the southern limits of the pond as seen from Pacific Way south of the site.

(Photo taken: March 28, 2018)

Photo J:

View to the southeast. Includes the south end of the pond.

(Photo taken: March 28, 2018)



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Photo K:

View to the north. Includes the south end of Wetland I. McCormick Gardens Road is to the right.

(Photo taken: March 28, 2018)

Photo L:

View to the south of typical upland conditions in the southeastern portion of the study area.

(Photo taken: March 28, 2018)



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Photo M:

View of Wetland E as seen from the west (looking east).

(Photo taken: March 28, 2018)

Photo N:

View to the east of the eastern portion of Wetland G.

(Photo taken: December 11, 2017)



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Photo O:

View to the north at the east end of Wetland A.

(Photo taken: March 28, 2018)

Photo P:

View to the north of Wetland D (in the foreground) and adjoining forested upland beyond.

(Photo taken: March 28, 2018)



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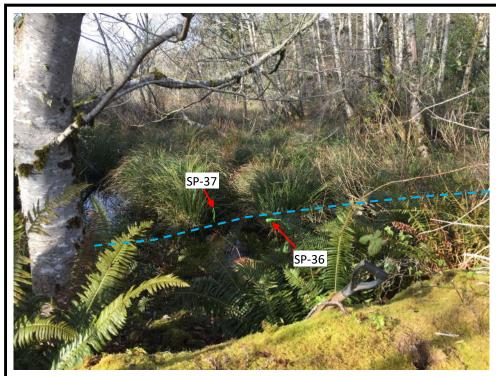


Photo Q:

View to the north of typical conditions in Wetland A.

(Photo taken: March 28, 2018)

Photo R:

View to the west. Shows western access road that lies between Wetland A (to the right) and Wetland B (to the left).

(Photo taken: March 28, 2018)



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Appendix D

Wetland Definitions, Methodology, and References



WATERS OF THE STATE AND WETLAND DEFINITION AND CRITERIA

Regulatory Jurisdiction

Wetlands and water resources in Oregon are regulated by the Oregon Department of State Lands (DSL) under the Removal-Fill Law (ORS 196.800-196.990) and by the U.S. Army Corps of Engineers (COE) through Section 404 of the Clean Water Act.

The primary source document for wetland delineations within Oregon is the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (Environmental Laboratory 1987) which is recognized by both DSL and COE.

Waters of the State and Wetland Definition

Waters of the State are defined as "natural waterways including all tidal and nontidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and nonnavigable...". "Natural waterways" is further defined as waterways created naturally by geological and hydrological processes, waterways that would be natural but for human-caused disturbances (e.g. channelized or culverted streams, impounded waters, partially drained wetlands or ponds created in wetlands)..."(DSL, 2001).

Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (DSL, 2001).

Wetland Criteria

Based on the above definition, three major factors characterize a wetland: hydrology, substrate, and biota.

Wetland Hydrology

Wetland hydrology is related to duration of saturation, frequency of saturation, and critical depth of saturation. The 1987 manual defines wetland hydrology as inundation or saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The wetland hydrology criterion can be met, however, if saturation within the major portion of the root zone is present for only 5% of the growing season, depending on other evidence.

The growing season is defined as the portion of the year when soil temperatures at 19.7 inches below the soil surface are higher than biological zero (41 degrees Fahrenheit, 5 degrees Celsius), but also allows approximation from frost free days, based on air temperature. The growing season for any given site or location is determined from US Natural Resources Conservation Service, (formerly Soil Conservation Service) data and information.

Wetland hydrologic indicators include the following: visual observation of inundation or saturation, watermarks, drift lines, sediment deposits, drainage pattern, and/or oxidized rhizospheres with living roots. Oxidized rhizospheres are defined as yellowish-red zones around the roots and rhizomes of some plants that grow in frequently saturated soils.

Wetland Substrate (Soils)

Most wetlands are characterized by hydric soils. Hydric soils are those that are ponded, flooded, or saturated for long enough during the growing season to develop anaerobic conditions. Periodic saturation of soils causes alternation of reduced and oxidized conditions, which leads to the formation of redoximorphic features (gleying and mottling). Mineral hydric soils will be either gleyed or will have bright mottles and/or low matrix chroma. The redoximorphic feature known as gley is a result of greatly reduced soil conditions, which result in a characteristic grayish, bluish or greenish soil color. The term mottling is used to describe areas of contrasting color within a soil matrix. The soil matrix is the portion of the soil layer that has the predominant color. Soils that have brightly colored mottles and a low matrix chroma are indicative of a fluctuating water table.

Hydric soil indicators include: organic content of greater than 50% by volume, sulfidic material or "rotten egg" odor, and/or presence of redoximorphic features and dark soil matrix, as determined by the use of a Munsell Soil Color Chart. This chart establishes the chroma, value and hue of soils based on comparison with color chips. Mineral hydric soils usually have a matrix chroma of 2 or less in mottled soils, or a matrix chroma of 1 or less in unmottled soils.

Wetland Biota (Vegetation)

Wetland biota is defined as hydrophytic vegetation. A hydrophyte is a plant species that is capable of growing in substrates that are periodically deficient in oxygen as a result of saturated soil conditions. The U.S. Fish and Wildlife Service, in the *National List of Plant Species that Occur in Wetlands*, has established five basic groups of vegetation based on their frequency of occurrence in wetlands. These categories, referred to as the "wetland indicator status", are as follows: obligate wetland plants (OBL), facultative wetland (FACW), facultative (FAC), facultative upland (FACU), and obligate upland (UPL). Table 1 gives a definition of the plant indicator codes.

Indicator	
Code	Status
OBL	Obligate wetland. Estimated to occur almost exclusively in wetlands (>99%)
FACW	Facultative wetland. Estimated to occur 67-99% of the time in wetlands.
FAC	Facultative. Occur equally in wetlands and non-wetlands (34-66%).
FACU	Facultative upland. Usually occur in non-wetlands (67-99%).
UPL	Obligate upland. Estimated to occur almost exclusively in non-wetlands (>99%). If a species is not assigned to one of the four groups described above it is assumed to be obligate upland.
NI	Has not yet received a wetland indicator status, but is probably not obligate upland.

Table 1. Description of wetland Flant indicator Status Codes	Table 1.	Description of Wetland Plant Indicator Status Codes
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Observations of hydrology, soils, and vegetation, were made using the "Routine On-site" delineation method as defined in the 1987 manual for areas that were not currently in agricultural production. One-foot diameter soil pits were excavated to 16 inches and soil profiles were examined for hydric soil and wetland hydrology field indicators. In addition, a visual percent-

cover estimate of the dominant species of the plant community was performed using soil pit locations as a center of reference. Dominant plant species are based on estimates of percent cover for herbaceous, woody vine, and shrub species within a 5 foot radius of the sample point, and basal area cover for tree species within a 30 foot radius of the sample point. Plant species in each vegetative layer, which are estimated at less than 20%, are not considered to be dominant. The wetland indicator status is then used to determine if there is an overall dominance (greater than 50%) of wetland or upland plant species.

During data collection, the soil profiles were examined for hydric soil and wetland hydrology field indicators. Plant species and cover were recorded. Data was recorded on standard data sheets which contain the information specified in the 1987 Corps manual.