

WETLAND DELINEATION REPORT

April 27, 2020



Oslo Bay Apartments
Poulsbo, WA

Prepared for

Edward Rose and Sons PO Box 2011 Bloomfield Hills, MI 48303 (248) 686-5500

Prepared by

Ecological Land Services

1157 3rd Avenue, Suite 220A • Longview, WA 98632 (360) 578-1371 • Project Number 2407.01

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SIGNATURE PAGE

The	e information	and data	in this	report	were	compiled	and	prepared	under	the	superv	ision	and
dire	ection of the u	undersign	ed.										

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Senior Biologist

Introduction

Ecological Land Services, Inc. (ELS) was contracted by Edward Rose and Sons (Rose) to update the wetland delineation and report prepared for the five properties, parcel numbers 102601-4-022-2009, 112601-3-021-2001, 112601-3-006-2000, 112601-3-008-2008, and 112601-3-012-2002, in Poulsbo, Washington (Figure 2). These properties are located in the northwest corner of the intersection of State Route 305 and State Route 307 (Bond Road) in Sections 10 and 11 in Township 26 N, Range 1 East of the Willamette Meridian (Figure 1). This report summarizes findings of the wetland delineation according to the *Poulsbo Municipal Code (PMC)*, *Chapter 16.20 Wetlands* for delineation methodology, wetland categorization, and required buffer widths.

METHODOLOGY

The wetland delineation followed the Routine Determination Method according to the U.S. Army Corps of Engineers, Wetland Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region, Version 2.0 (U.S. Army Engineer Research and Development Center, 2010).

The Routine Determination Method examines three parameters—vegetation, soils, and hydrology—to determine if wetlands exist in a given area. Hydrology is critical in determining what is wetland but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for long enough duration to support a wetland plant community. By definition, wetlands are 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. Wetlands are regulated as "Waters of the United States" by the U.S. Army Corps of Engineers (USACE), as "Waters of the State" by the Washington Department of Ecology (Ecology), and locally by the City of Poulsbo.

The wetlands on this property were delineated by Wiltermood Associates, Inc. (Wiltermood) between July 2006 and February 2011. A wetland analysis report was prepared in December 2010 and revised in April 2011 (Wiltermood 2011), which described the wetlands, the categories, and buffers in detail. ELS was contracted to update the report to current methodologies in June 2016 because it had been more than 5 years since the wetlands were last delineated. The report update included a field visit to verify the 2010 and 2011 delineations. The field visit revealed that flags remain around each wetland and they reflect the current wetland boundaries. Few flags were found around Wetland C, so the boundary was re-delineated during the June 2016 site visit and each was located using a Trimble handheld Global Positioning System (GPS) unit. The comparison of the GPS points and the original survey indicate the boundary of Wetland C remains as delineated in 2011 (Figure 2).

There have been no changes to the forested condition of the wetlands and the properties in general, so data was not collected during the June 2016 site visit. Therefore, the data forms prepared by Wiltermood were updated for inclusion in this report. The Wiltermood delineation was conducted using the Corps of Engineers Supplement to the Wetland Delineation Manual for Western

Mountains, Valleys, and Coast Region so the methodology is up to date. To determine the presence or absence of wetlands on these properties, the Wiltermood biologists (primarily Joanne Bartlett) collected data on vegetation, hydrology, and soils. During the 2016 site visit, the boundaries of the three onsite wetlands were identified and verified as accurate and new flags were hung only along the boundary of Wetland C. The wetland boundaries were delineated using consecutively numbered fluorescent flagging labeled "WETLAND BOUNDARY". Wetland boundaries were determined through breaks in topography, changes in vegetation, and evidence of hydrology. Vegetation, hydrology, and soil data was collected by Wiltermood at thirty test plots to verify the wetland boundary delineations and document onsite conditions (Appendix A). The wetland boundary and test plot flags were surveyed following the final delineation in 2011 by Team 4 Engineering and are shown on the site map (Figure 2).

2020 Report Updates and Revisions

In February 2020, this report was peer reviewed for the City of Poulsbo by Grette Associates and inconsistencies were noted in the report and ratings for each of the three wetlands. The report was revised to address the inconsistencies, which include updating the water typing per the current PMC, updating the wetland rating forms, and the buffer width determinations. Table 1 has been added to document the comments regarding wetland rating inconsistencies and comments and provides the responses through the ELS revisions. Historic aerials photos were obtained to answer questions about the presence of mature forests within 330 feet of the wetlands. Some of the rating figures were updated to reflect current development within 1 kilometer of the wetlands. Changes were not made to the description of the site, vegetation, soils, and hydrology.

SITE DESCRIPTION

The 5 parcels form a roughly 59-acre project site with most composed of upland forest on undulating to steeply sloping terrain. The steepest slope is in the southeast corner down to Dogfish Creek. The parcels are all currently undeveloped but a historic homesite was located on the western parcel. The home has been removed and the only indication that a home was on this property is the driveway from State Route (SR) 305. Dogfish Creek crosses the very southeast corner of the project site through an open section between the culverts under SR 307 and SR 305.

The 2011 Wiltermood wetland delineation revealed three wetlands on the project site. Wetland A is located in the southeast corner of the project site and is on sloping terrain that ends at Dogfish Creek. It is a forested mosaic system that provides a source of hydrology to Dogfish Creek but does not receive waters from the stream during flood events. There is a large upland island situated near the east end of the wetland that is surrounded by the mosaic wetland system. Wetland B is a sloping system that lies on ravine slopes on both sides of the unnamed stream located at the southwest corner of the project site. The onsite wetland ends at the culvert under State Route 305, which is located along the south edge of the project site. The stream continues south and eventually drains into Dogfish Creek just before it enters Liberty Bay. Wetland C is a sloping scrub/shrub system that lies along the east edge of the project site and is just upslope of SR 307. It drains into the ditch along SR 307, which conveys water downslope and south toward Dogfish Creek.

VEGETATION

The June 2016 site visit revealed that the wetlands remain in the forested conditions as described presented in the 2011 report (Wiltermood 2011). The forested community of Wetland A was dominated by western red cedar (*Thuja plicata*, FAC) and red alder (*Alnus rubra*, FAC) in the tree layer. The shrub layer was sparse in much of the wetland with low percentages of salmonberry (*Rubus spectabilis*, FAC) throughout. The herbaceous layer was moderately dense and was dominated by lady fern (*Athyrium filix-femina*, FAC), slough sedge (*Carex obnupta*, OBL), foam flower (*Tiarella trifoliata*, FAC), skunk cabbage (*Lysichiton americanum*, OBL), deer fern (*Blechnum spicant*, FAC), trailing blackberry (*Rubus ursinus*, FACU), and horsetail (*Equisetum arvense*, FAC).

Wetland B was forested and dominated western red cedar, with a sparse shrub layer of salmonberry and red elderberry (*Sambucus racemosa*, FACU). The herbaceous layer was dominated by skunk cabbage and lady fern with lower percentages of horsetail, youth on age (*Tolmeia. menziesii*, FAC), and sword fern (*Polystichum munitum*, FACU).

Wetland C was composed of forested and scrub/shrub vegetation communities dominated by red alder in the forest canopy, salmonberry in the shrub communities, and reed canarygrass (*Phalaris arundinacea*, FACW) in the understory of the forest and shrub communities. Himalayan blackberry (*Rubus armeniacus*, FAC) is present in some areas.

The upland communities on the project site were dominated primarily by coniferous forest with sparse shrub and sometimes dense herbaceous layers. There are areas of deciduous trees primarily on the east and west sides with dense shrub and sparse herbaceous layers. The upland vegetation includes Douglas fir (*Pseudotsuga menziesii*, FACU), western red cedar, red alder, bigleaf maple (*Acer macrophyllum*, FACU), cascara (*Frangula purshiana*, FAC), bitter cherry (*Prunus emarginata*, FACU), and western hemlock (*Tsuga heterophylla*, FACU) in the tree canopy. The shrub layer is mostly sparse and includes varying percentages of salmonberry, Indian plum (*Oemleria cerasiformis*, FACU), evergreen huckleberry (*Vaccinium ovatum*, FACU), hazelnut (*Corylus cornuta*, FACU), red huckleberry (*Vaccinium parvifolium*, FACU), salal (*Gaultheria shallon*, FACU), pacific rhododendron (*Rhododendron macrophyllum*, UPL), ocean spray (*Holodiscus discolor*, FACU), Himalayan blackberry, red elderberry (*Sambucus racemosa*, FACU), Oregon grape (*Mahonia nervosa*, FACU), and trailing blackberry (*R. ursinus*) FACU.

The dominant vegetation found onsite is recorded on the attached wetland determination data forms (Appendix A). The indicator status, following the common and scientific names, indicates how likely a species is to be found in wetlands. Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) Almost always occur in wetlands.
- **FACW** (facultative wetland) Usually occur in wetlands, but may occur in non-wetlands.
- **FAC** (facultative) Occur in wetlands and non-wetlands.
- **FACU** (facultative upland) Usually occur in non-wetlands, but may occur in wetlands.
- **UPL** (obligate upland) Almost never occur in wetlands.
- **NI** (no indicator) Status not yet determined.

Soils

As referenced on the U.S.D.A. Natural Resources Conservation Service (NRCS 2015) website, the soils from west to east across this property include Poulsbo gravelly sandy loam, 0-6 percent slopes (39), Poulsbo gravelly sandy loam, 6 to 15 percent slopes (40), and Poulsbo gravelly sandy loam, 15-30 percent slopes (41), Norma fine sandy loam (37) at the southeast corner and along the west edge, and Bellingham silty clay loam (6) in a small area along the east edge (Figure 3). Poulsbo soils are not classified as hydric, but Norma and Bellingham soils are classified as hydric (NRCS 2015). The identified and delineated wetland areas are located in areas where hydric soils are mapped. Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

The soils evaluated in Wetland A were composed of peat in some locations and loam to gravelly sandy loam in others with black (10YR 2/2 to 10YR 3/2) soil matrix colors found in the Wetland A test plots. Redoximorphic concentrations were visible in the gravelly sandy loam that have reddish brown (10YR 4/6) colors and a sulfidic odor was emitted from the soil hole with the peat soil profile. The soils evaluated in Wetlands B and C are identical consisting of sandy loam with a black (10YR 2/1) soil matrix chroma. The subsurface layer of these profiles was not reached within 16 inches and because these profiles appear to represent a dark surface layer, they have characteristics for hydric soil indicator A12 (thick dark surface). The soil profiles in Wetland A meet hydric soil indicators A1-Histosol and A2-Hydrogen Sulfide and A11 for a depleted matrix below a dark surface. The soil profiles in Wetlands B and C most closely match the description for hydric soil indicator A12 because of the dark matrix chroma in the surface that extends to a depth of 16 inches. A soil layer exhibiting a depleted matrix chroma is presumed present lower in these profiles.

The upland soils evaluated across the project site were composed of loam to gravelly sandy loam with dark brown to bright yellowish-orange (7.5YR 4/4 and 10YR 2/2 to 10YR 5/4) matrix colors. Redoximorphic features were not observed in any of the upland soil profiles. The upland soil profiles have bright red to orange matrix chromas so do not have characteristics for any of the hydric soil indicators.

Hydrology

Each of the wetlands exhibited shallow water tables and saturation to within 12 inches of the soil surface during the previous delineations. Similar hydrologic conditions were observed during the June 2016 verification site visit. The source of hydrology within these wetlands is groundwater discharge from the slopes with additional inputs from direct precipitation. Water flows down the sloping terrain of each wetland and either flows into a stream (Wetlands A and B) or into a roadside ditch (Wetland C). None of these wetland areas are influenced by floodwaters from the streams or ditch because they are situated upslope and outside the immediate flood zone. Hydrology was not present in the upland areas and there was no evidence of wetland hydrology.

NATIONAL WETLAND INVENTORY

The National Wetlands Inventory (NWI) map indicates the presence of wetland across the west edge of the property, which corresponds with the location of Wetland B (Figure 4). The areas

identified as Wetlands A and C are not shown in the NWI map. ELS biologists partially agree with the mapping of the wetlands because Wetland B is in the mapped location, however, the map shows a much larger wetland than was delineated in 2011 and does not show Wetlands A or C. The NWI maps should be used with discretion because they are used to gather general wetland information about a regional area and therefore are limited in accuracy for smaller areas because of their large scale.

KITSAP COUNTY CRITICAL AREAS

The Kitsap County Critical Areas map (KC 2015) identifies wetland along the west edge and at the southeast corner of the project site (Figure 5). The map shows the area as hydric soil per the NRCS and wetland per the NWI where the onsite wetlands were identified and delineated. ELS biologists agree with the mapping of hydric soils except in the area of Wetland B because the maps show much greater wetland area than was identified during the boundary delineations.

CONCLUSIONS

WETLAND CATEGORIZATION

Three wetlands were identified and delineated on the Oslo Bay Apartments properties and each are composed of a slope hydrogeomorphic (HGM) class. The wetlands were rated according to *Washington State Wetlands Rating System for Western Washington, 2014 Update* (Rating System) (Hruby 2014). The categories of the onsite wetlands are based on the scores for water quality, hydrologic, and habitat functions (Appendix B). The rating forms were revised per Table 1 but none of the wetland ratings changed as indicated on Table 2.

2020 Wetland Categorization Revisions

This wetland delineation report was peer reviewed in early 2020 by Grette Associates and during review incorrect answers were identified. Table 1 provides an overview of the questions on the rating forms identified as incorrectly answered during peer review and the revisions that were made per question. Also noted is whether the score for the question was changed and the reasons why they were not.

Table 1: Wetland Categorization Revisions

Question # (Peer Review comments)	Wetland A	Wetland B	Wetland C	ELS Revision
S 6.1	Fish and SalmonScape 1/30/2020), cois documente	Washington I Wildlife's on-line map oho and steelh d to occur w ream of the wel	(WDFW) per (queried ead spawning ithin Dogfish	The rating forms have been revised to include the additional point added to the answer for S 6.0 and each wetland now scores High for this question.
Н 2.3	points for according to	orm for Wetlan this question Figure 9 in the y 44.7 percent	n. However, e Report, only	During review of the 1 KM offset for Wetland B, ELS conducted review of the mapping for all three wetlands to ensure that they reflect the proper

	within one kilometer of the wetland is considered high intensity land use. Based on this information, this question should be given 0 points rather than -2 points which would give this question a score of Moderate. ELS correction: It appears that the peer review comment for this question was regarding Wetland B but should have applied to Wetlands A and C.	areas of high and moderate/low intensity land uses, accessible habitat, and undisturbed habitat. The updated figures reveal that there is greater than 50 percent high intensity land use within 1 KM of all three wetlands. The scores for the H 2.3 have not changed for any of the wetlands.
Н 3.1	The rating forms give this question one point for two WDFW priority habitats within 330 feet of the wetlands. These ratings did not include the mature upland forest that occupies much of the subject properties. 2 points (3 priority habitats) should be given for this question for Wetlands A and B and 1 point (2 priority habitats) for Wetland C.	For a forest to be considered mature, the trees need to be between 80 and 200 years old. ELS reviewed historic aerial photos from 1951, 1969, and 1981 to determine if the properties were logged over the past 80 years (1940 to 2020) (Figures 10a to 10c). The aerials indicate that the forest was logged at least twice over the past 80 years so most of the trees do not meet the definition for a mature forest. No points were added to H 3.1 for mature forest within 330 feet of each wetland. The score for H 3.1 was not changed for any of the wetlands.

Table 2: Wetland Categories

Wetland	HGM Class	ass Vegetation 2014 Wetland Rating System Class					
			Water Quality	Hydrologic	Habitat	Total	
A	Slope	Forested	5	5	5 (low)	15	IV
В	Slope	Forested	5	5	4	14	IV
\mathbf{C}	Slope	Forested	6	5	4	15	IV

WATER TYPING

Dogfish Creek crosses the southeast corner of the project site entering and leaving the site via culverts under SR 307 and SR 305, respectively. An unnamed stream, which is a tributary of Dogfish Creek, flows southerly along the southwest corner of the site and exits the property via culvert under SR 305. Dogfish Creek has known use by coho salmon and Puget Sound steelhead so is a Type F1 water according the PMC and the unnamed stream does not have known fish use and is a Type F2 water.

CRITICAL AREA REGULATIONS

The PMC Chapter 16.20.230 C specifies wetland buffer widths based on the category of the wetland, the intensity of the proposed land use, and scores for habitat functions. Because the wetlands are Category IV, the buffers are based only on the category and the proposed high intensity land use. The PMC Chapter 16.20.315.A.6 specifies stream buffers based on the water type. Because there are wetlands and streams on the project site, the buffer that provides the most protection for both critical areas will be the regulated buffer, which for Dogfish Creek, will be represented by Wetland A and its buffer. A 15-foot building and impervious setback is required from the edge of all critical area buffers. The buffer requirements based on wetland categorization and water type are provided in Table 3.

Table 3. Wetland Classification, Water Type, and Buffer Requirements

Critical Area	Cowardin Class	Wetland Category or Water Type	Habitat Score	Critical Area Buffer Widths*	
Wetland A	PFOB	IV	5	50 feet	
Wetland B	PFOB	IV	5	50 feet	
Wetland C	PFOSSB	IV	5	50 feet	
Dogfish Creek		F1 (salmonids)		200 feet	
Unnamed Stream		F2 (non- salmonids)		150 feet	

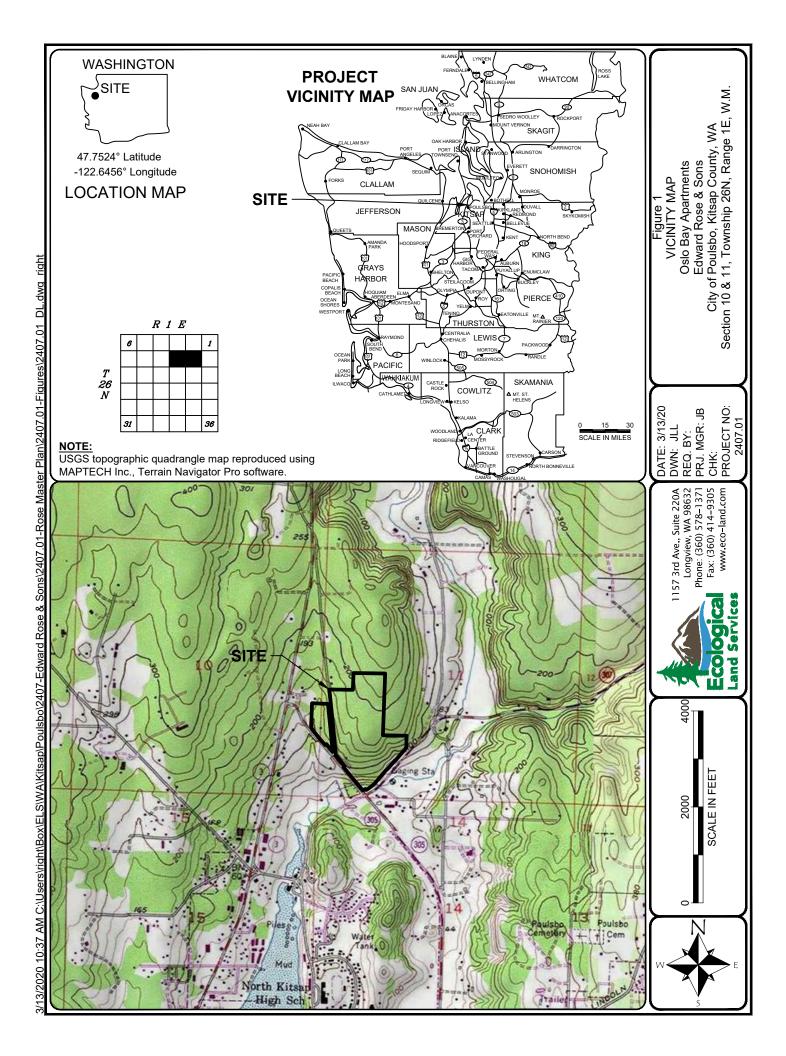
^{*}per PMC 16.20.230.B

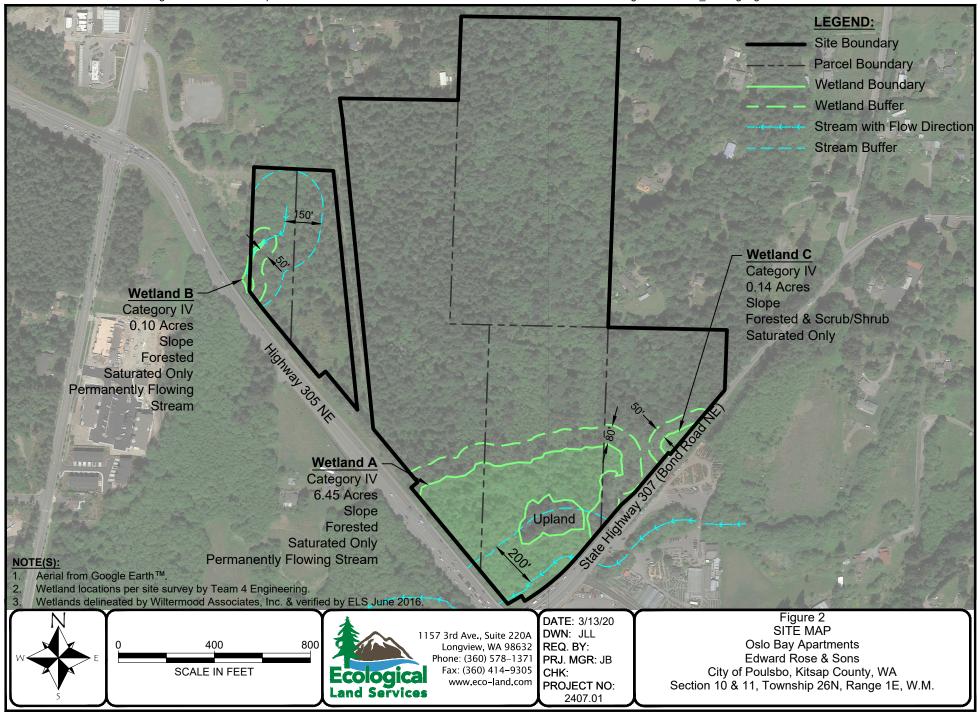
LIMITATIONS

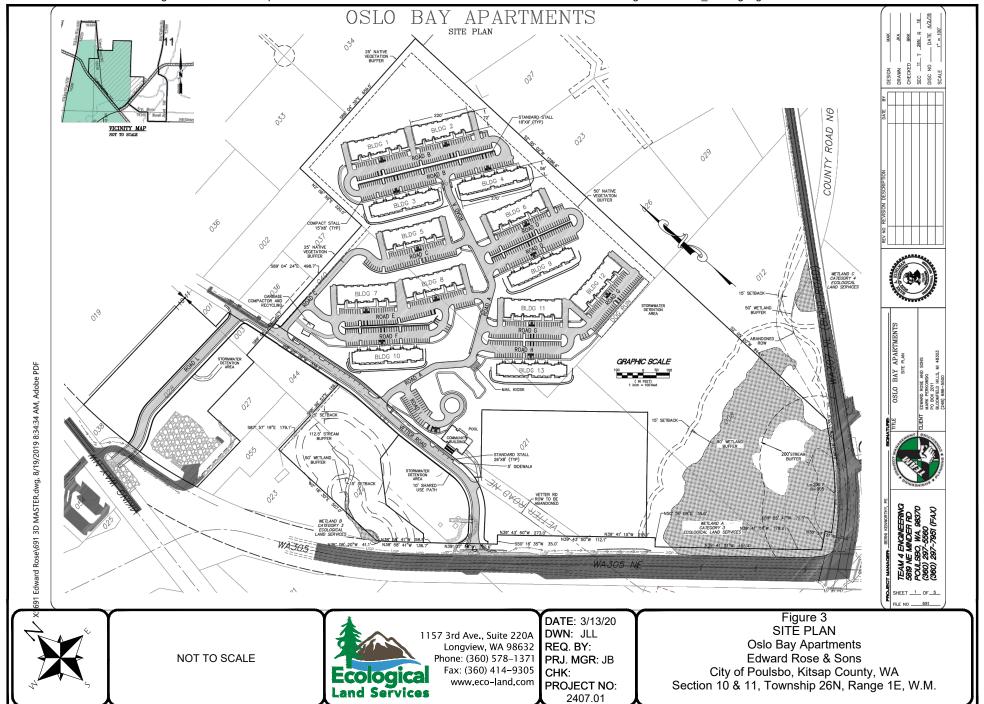
ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at your own risk until it has been approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

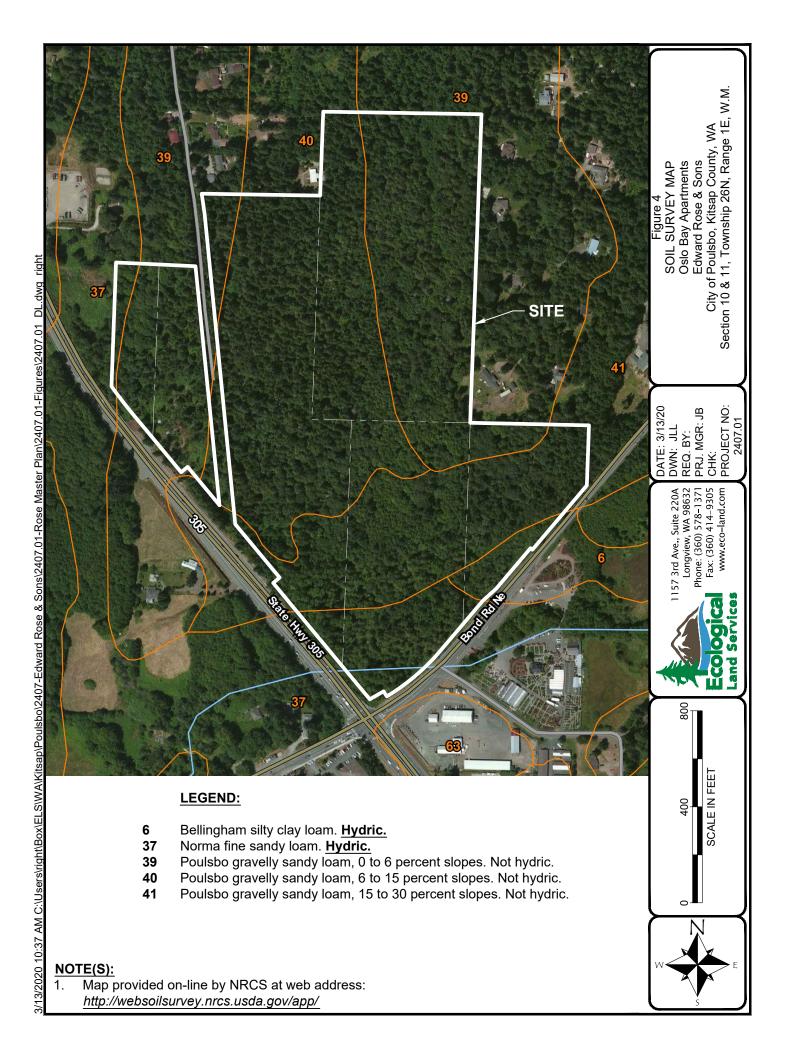
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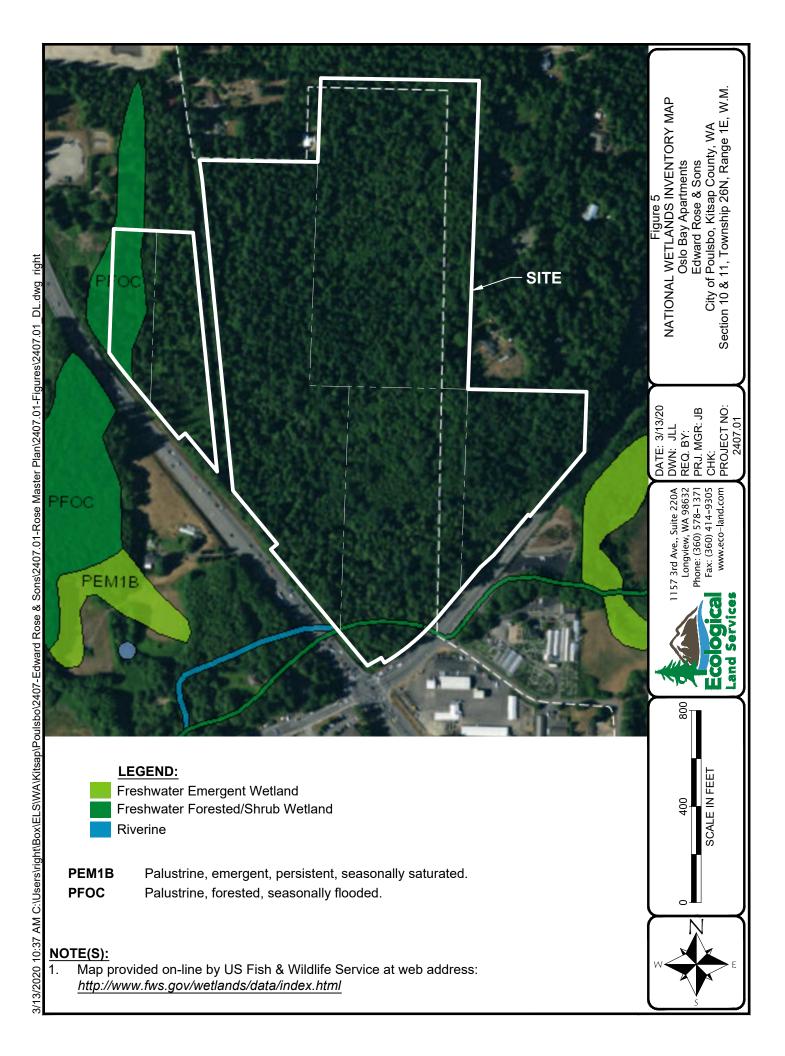
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- U.S. Fish & Wildlife Service (USFWS). 2019. *National Wetlands Inventory*. Online document < https://www.fws.gov/wetlands/Data/Mapper.html>. Website accessed March 2020.
- Wiltermood Associates, Inc. Wetland Analysis Report for the 5 Lots located at State Routes 305 and 307, Poulsbo Washington. December 1, 2010, Revised April 13, 2011.

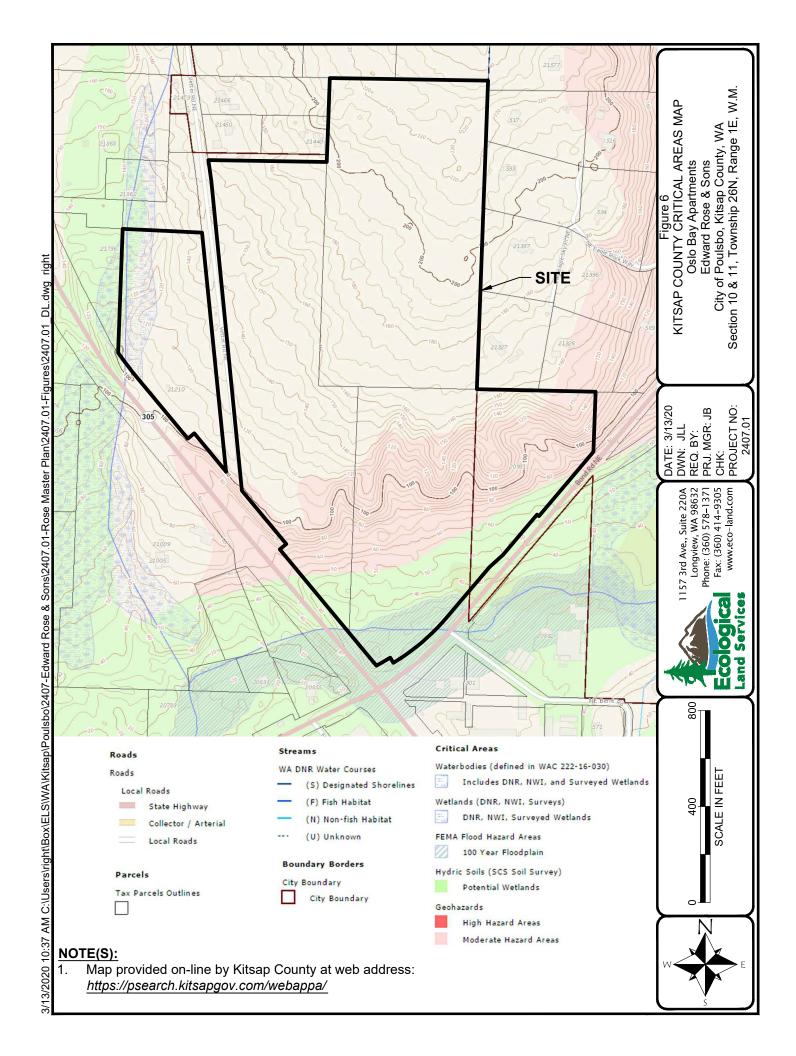


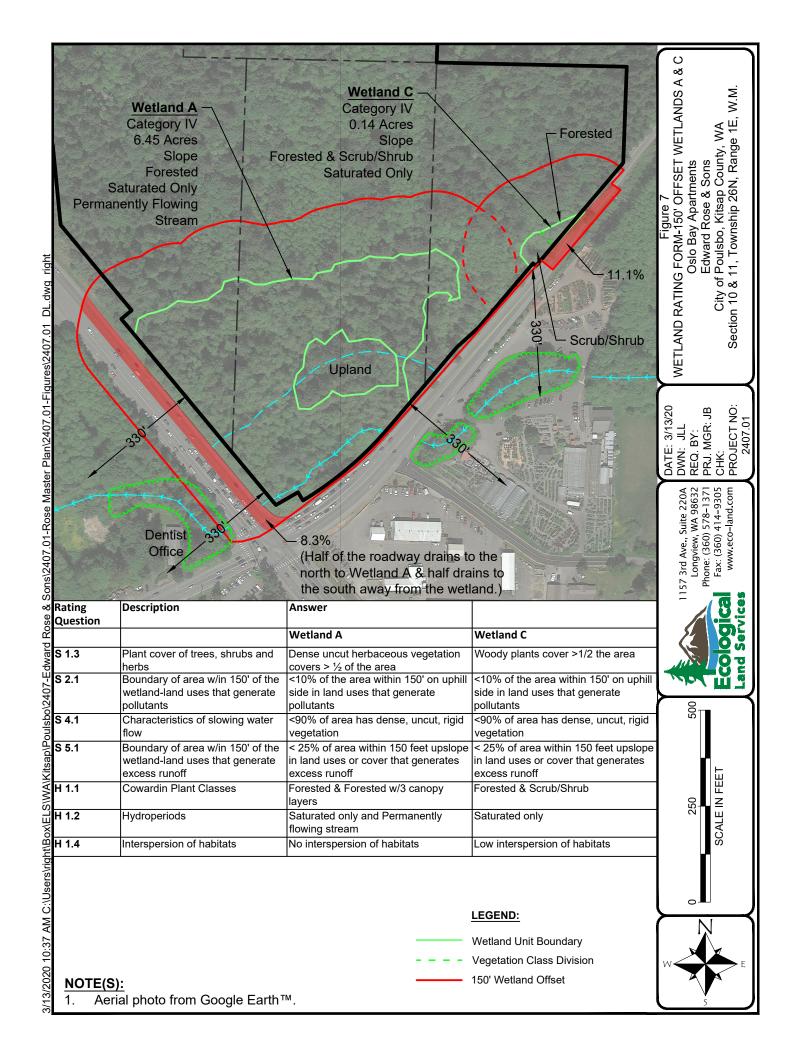


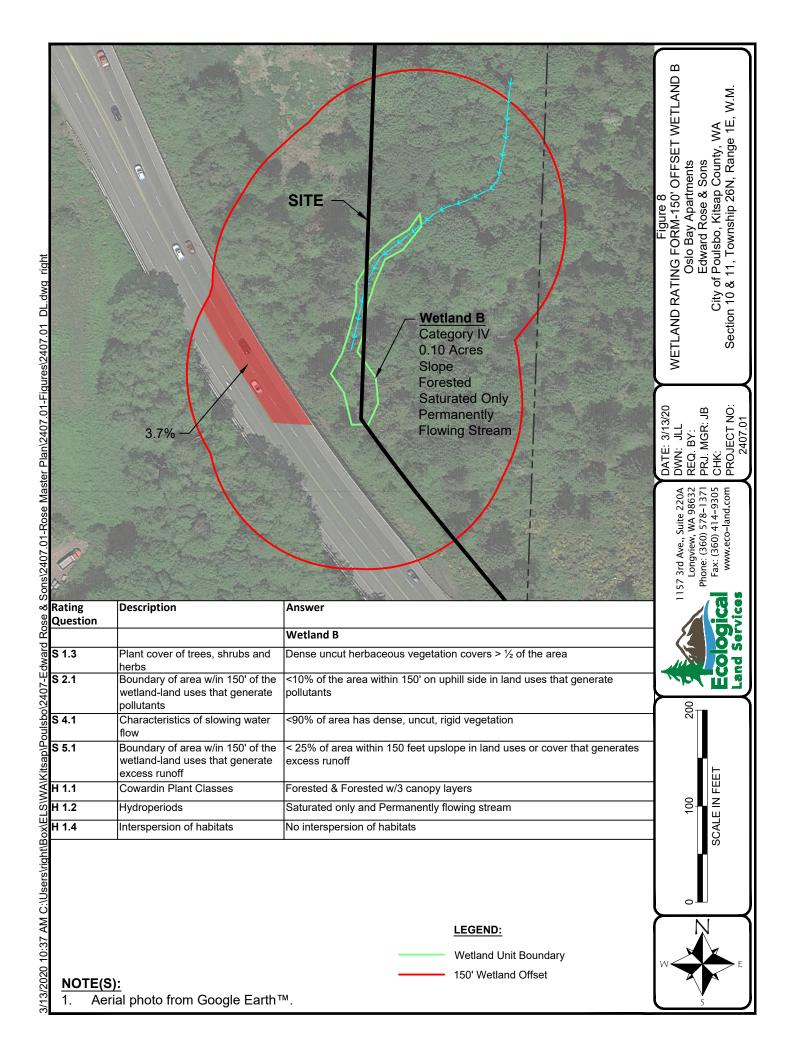


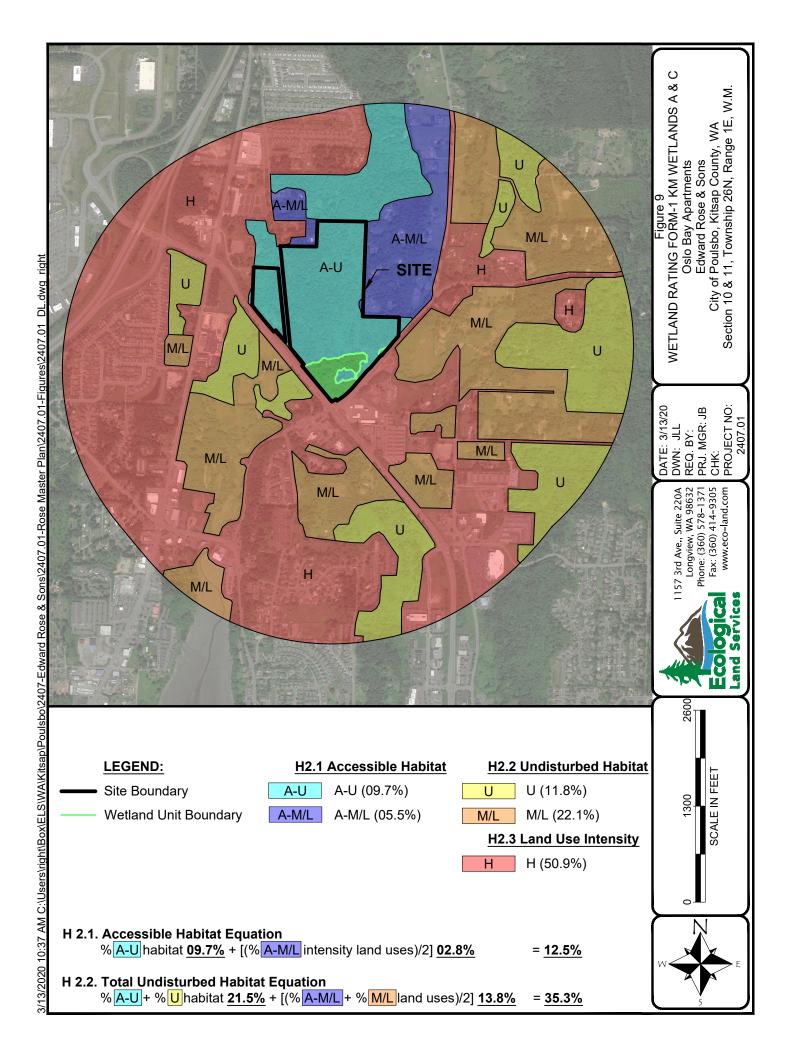


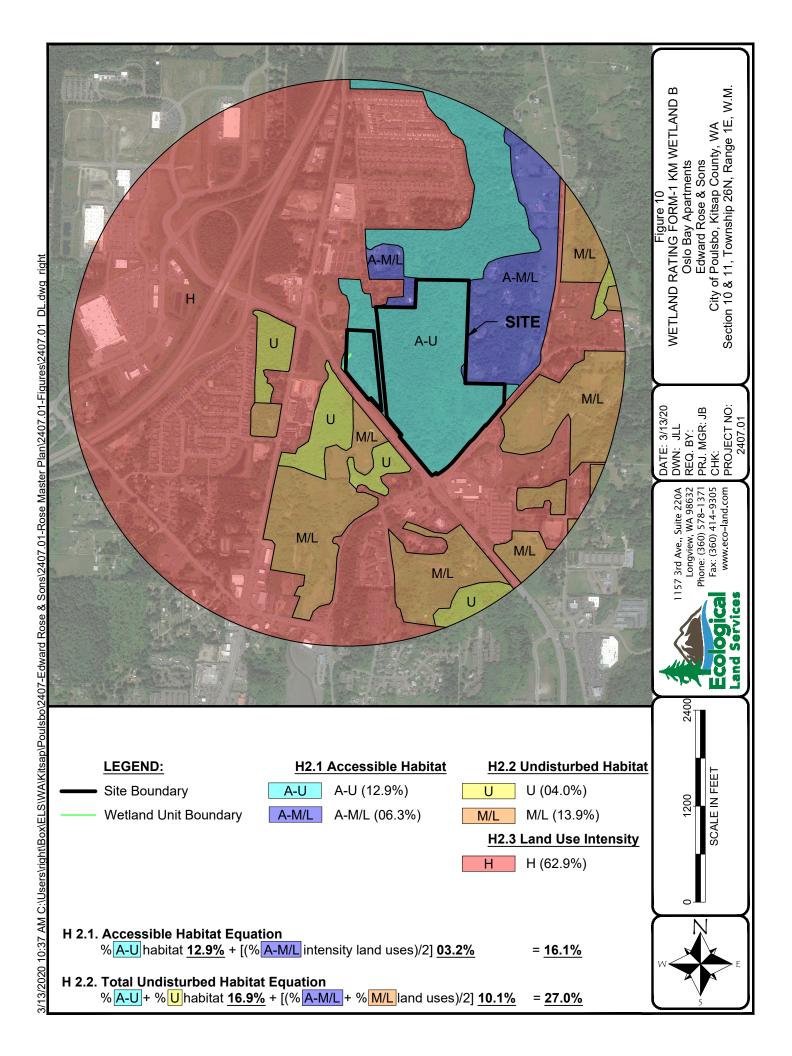


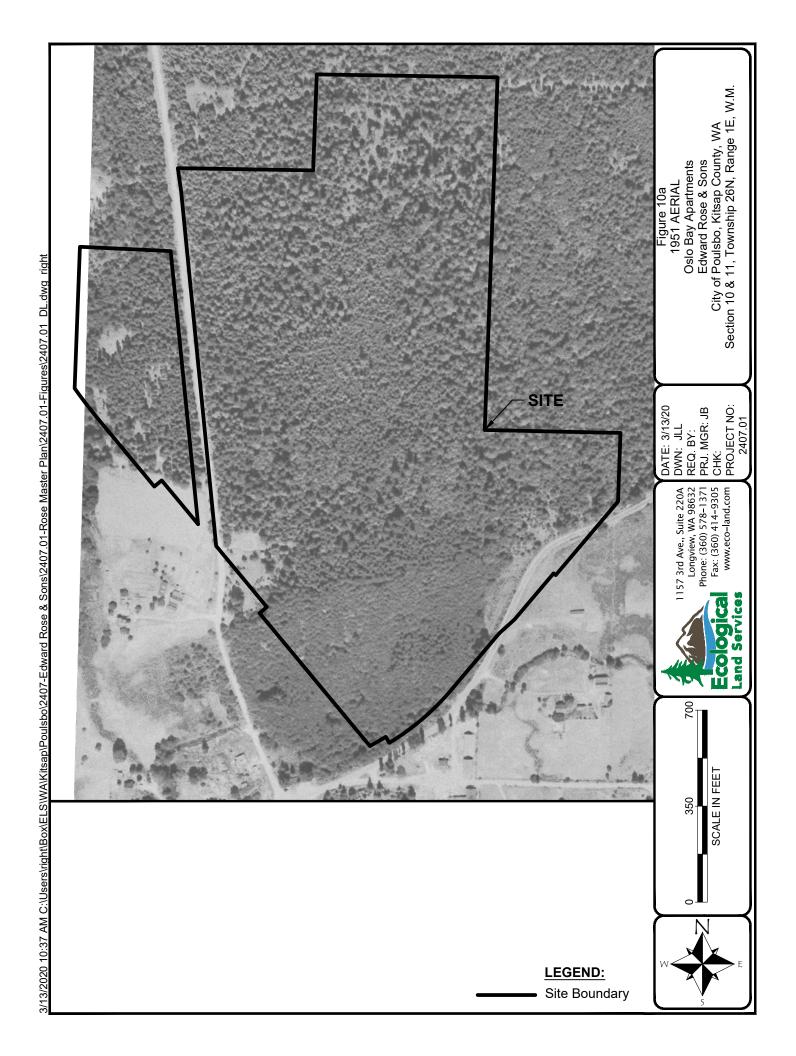


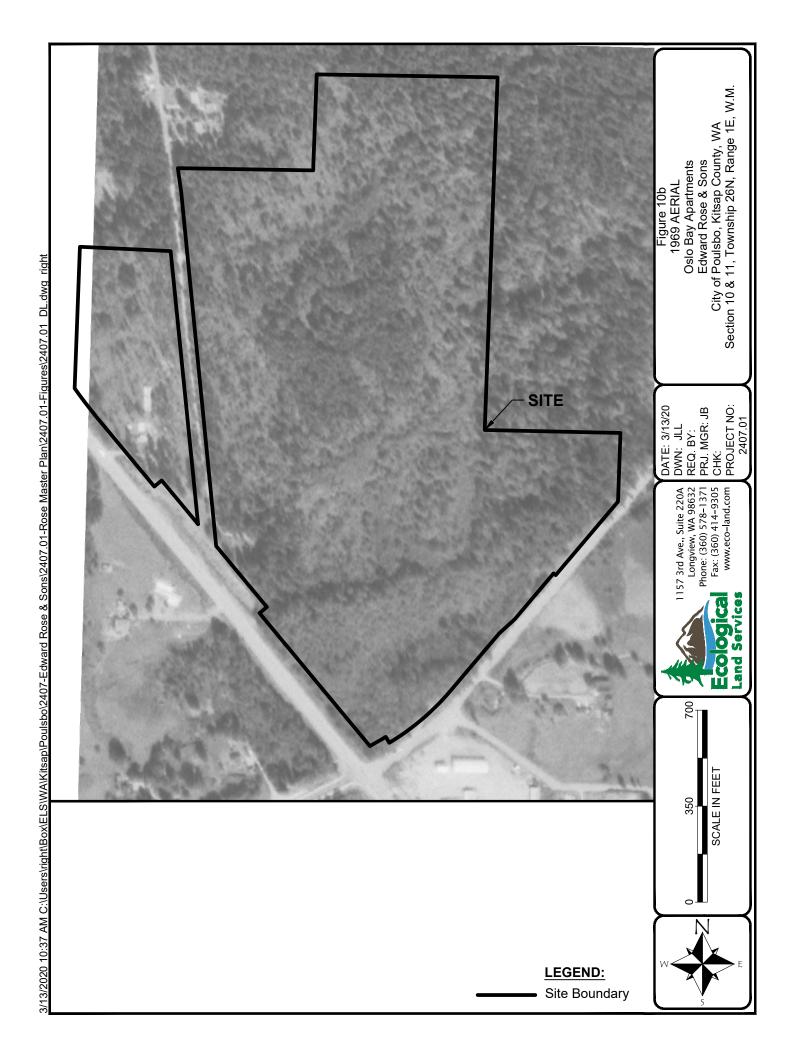












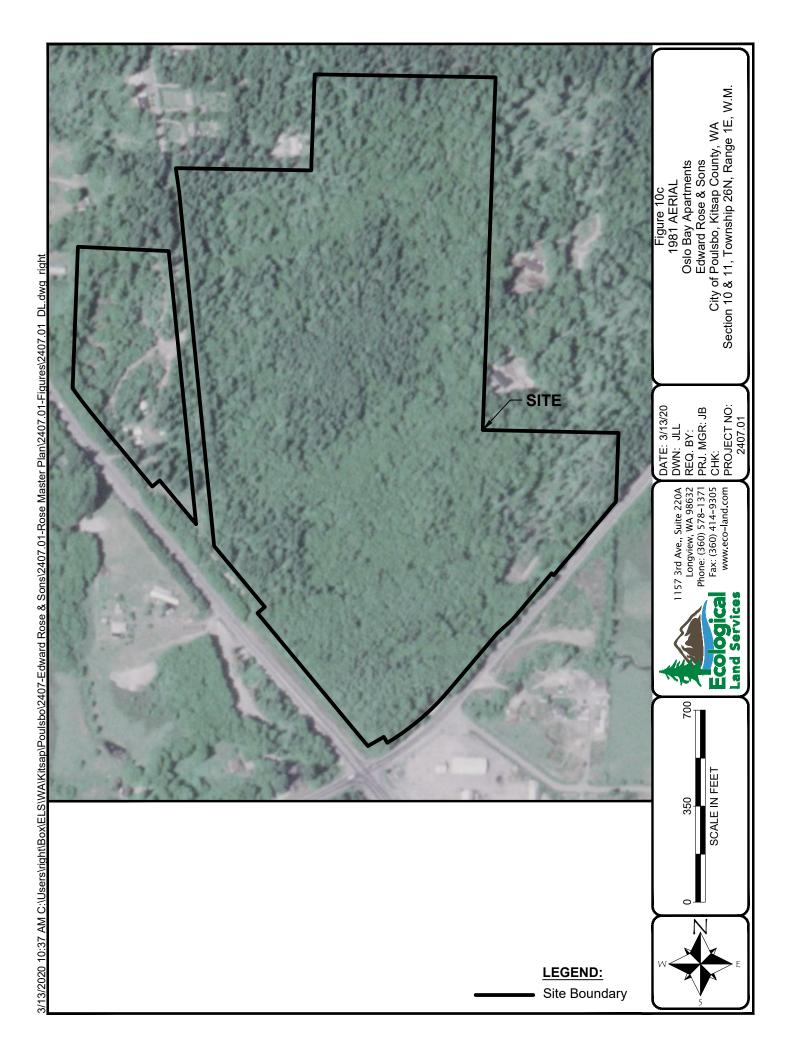




Photo 1 was taken during the 2011 delineation site visit by Wiltermood. It is taken from WB flag A-2 and looks northeasterly across the south end of Wetland A.



Photo 2 was taken from the same location as Photo 1 and looks easterly across Wetland A.



Photo 3 was taken from the same location as Photos 1 and 2. It looks southerly across Wetland A with WB A-2 featured prominently in this photo.



1157 3rd Ave., Suite 220A Longview, WA 98632 (360) 578-1371 Fax: (360) 414-9305

DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 1
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 4 was taken during the 2011 delineation site visit by Wiltermood. This photo looks north along the upland slope that lies just west of Wetland A. Test Plot 2-A was conducted in this area to verify the wetland boundary delineation.



Photo 5 was taken from the same location as Photo 4 and looks directly into the area where Test Plot 2-A was conducted. This area is determined to be upland because it lacks positive indicators for all three wetland parameters.



Photo 6 was taken from the same location as Photos 4 and 5. It looks southerly across the upland west of Wetland A toward SR 305, which is visible in the lighted background.



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DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 2
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 7 was taken during the 2011 delineation site visit by Wiltermood. This photo was taken from near Test Plot 3-A and looks westerly up a dry swale that originates upslope and ends at the wetland boundary.



Photo 8 was taken from the same location as Photo 7 and looks northwesterly past Test Plot 3-A. It shows the slope that runs along the dry swale pictured in Photo 7.



Photo 9 was taken from the wetland boundary between flags WB A-20 and WB A-21. This photo looks westerly up a wider swale that ends at the wetland boundary. This area was determined to be upland because it lacks positive indicators for all three wetland parameters.



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DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 3
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 10 was taken from the same location as Photo 9 (Photoplate 3) between flags A-20 and A-21. It looks southwesterly toward flag A-20. The wetland is on the left side of the photo and upland is to the right.



Photo 11 was taken from the same location as Photos 9 and 10. It shows the area of Test Plot 4-A, which is just upslope and north of WB flag A-22. This area is determined to be upland because it lacks positive indicators for all three wetland parameters.



Photo 12 was taken from the same location as Photos 9, 10, and 11. It looks northeasterly along the wetland boundary as flagged at WB A-21. In this photo, the wetland is to the right and upland is on the left.



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DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 4
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 13 was taken from a point just upslope from Dogfish Creek, which crosses the southeast corner of the project site. This photo looks northeasterly at the forest that lies alongside the stream.



Photo 14 was taken from the same location as Photo 13. It looks easterly across the wetland that lays just upslope of Dogfish Creek. SR 307 appears in the lighted background of this photo.



Photo 15 was taken from the same location as Photos 13 and 14. It looks southerly through the lowest portion of Wetland A.



1157 3rd Ave., Suite 220A Longview, WA 98632 (360) 578-1371 Fax: (360) 414-9305 DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 5
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 16 was taken from the north boundary of Wetland A looking toward the upland island that is located in the east half of Wetland A. This photo looks southeasterly into the wetland north of the island.



Photo 17 was taken from the same location as Photo 16. It looks southerly down the slope along a rivulet that has formed in the sloping, seep fed wetland. Wetland boundary flag A-40 is on the tree at the right edge of this photo.



Photo 18 was taken from the edge of the upland island and looks across the northwest west portion.



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Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington



Photo 19 was taken from the same location as Photo 18 and shows the northwestern portion of the upland island within Wetland A. Note the Douglas fir trees growing on the island in the middle background.



Photo 20 was taken from the east boundary of Wetland B and looks southeasterly toward wetland boundary flag B-21, which is on the tree to the left.



Photo 21 was taken from the same location as Photo 20 and looks southerly across Wetland B.



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Photoplate 7



Photo 22 was taken from the same location as Photos 20 and 21 on Photoplate 7. It looks north along the wetland boundary with wetland boundary flag B-20 on the right edge of the photo.



Photo 23 was taken from the west boundary of Wetland C looking northeasterly. It was taken during the June 2016 field visit to verify the wetland boundaries because no photos were included in the 2011 wetland analysis report. This wetland is composed of forested (background) and shrub/shrub communities.



Photo 24 was taken from the same location as Photo 23 and looks easterly across the scrub/shrub portion of Wetland C.



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Photo 25 was taken from along the western boundary of Wetland A during the June 2016 site visit to verify the delineation. This photo looks north along the boundary with wetland to the right and the steep slope to the left.



Photo 26 was taken from the same location as Photo 25 during the 2016 field visit. It looks southeasterly into the wetland with a wetland boundary flag visible at the bottom of the small tree.



Photo 27 was taken from the same location as Photos 25 and 26 during the 2016 field visit. It looks south along the delineated boundary of Wetland A with wetland to the left and the upland slope to the right.



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Photoplate 9



Photo 28 was taken from just outside the northern tip of Wetland B during the June 2016 field visit to verify the wetland delineation. It looks upstream and north of the wetland into the drainage that enters the wetland.



Photo 29 was taken from about midway along the eastern boundary of Wetland B and looks upstream along the edge. The flag in the right half is one of the flags that remain in good condition from the earlier delineations.



Photo 30 was taken from the same location as Photo 29 and it looks southeasterly toward the downstream portion of Wetland B. The flag in the center remains from the previous delineation.



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DATE: 7/7/16 DWN: JB PRJ. MGR JB PROJ.#: 2407.01 Photoplate 10
Project Name: Edward Rose
Master Plan
Client: Edward Rose and Sons
Kitsap County, Washington

Project/Site: Rose Master Plan		City/Count	ty: <u>Poulsbo,</u>	Kitsap	Sampling Date: 6/2016	
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TP 1-A	
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		_Local reli	ief (concave,	, convex, none): sloping	Slope (%): <u>5</u>	5%
Subregion (LRR): MLRA 2	Lat:			_ Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-3	0% slopes			NWI classificat	tion: PFOB	
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrology sig	-			ormal Circumstances" pres	ent? Yes ⊠ No □	
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map			•		•	, etc.
Hydrophytic Vegetation Present? Yes ⊠ No □						
Hydric Soil Present? Yes No			he Sampled			
Wetland Hydrology Present? Yes ⊠ No □		Witi	hin a Wetlar	nd? Yes⊠ No) □	
Remarks: Wetland A is a sloping system west of Dogfish	Creek with a	forested o	community a	nd a saturated hydroperio	d. The test plot is located a	at
the south end of Wetland A where it begins just north of S	R 305 and is	s west of V	VB A-3. Wet	land A remains as it was de	elineated in 2010	
VEGETATION – Use scientific names of plan	its.					
Tree Stratum (Plot size: 30' diameter)			t Indicator ? Status	Dominance Test works		
Thuja plicata 1. Thuja plicata				Number of Dominant Spe That Are OBL FACW or	ecies r FAC: <u>5 </u>	Α)
2		-				, ,,
3.				Total Number of Domina Species Across All Strata		3)
4				,		,
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total (Percent of Dominant Spe That Are OBL, FACW, or	ecies r FAC: <u>100%</u> (A	4/B)
1. Rubus spectabilis	5%	Yes	FAC	Prevalence Index work	sheet:	
2. Sambucus racemosa	5%	Yes	FACU		Multiply by:	
3		·			x 1 =	
4				· ·	x 2 =	
5					x 3 =	
Herb Stratum (Plot size: 30 feet)	10%	= Total (Jover		x 4 = x 5 =	
1. Athyrium filix-femina	20%	Yes	FAC		(A)	
2. Equisetum arvense	15%	Yes	FAC			(5)
3. Rubus ursinus	10%	No	FACU		= B/A =	
4. Tiarellia trifoliata	10%	No	FAC	Hydrophytic Vegetation		
5. Lysichiton americanum	· · · · · · · · · · · · · · · · · · ·			□ Dominance Test is > □ □ Dominance Test is > □ D		
6				☐ Prevalence Index is	3.0° ations¹ (Provide supporting	_
7					or on a separate sheet)	g
8				☐ Wetland Non-Vascul	ar Plants ¹	
9				☐ Problematic Hydroph	nytic Vegetation ¹ (Explain)	J
10 11					and wetland hydrology mu	ust
111.		= Total 0		be present, unless distur	bed or problematic.	
Woody Vine Stratum (Plot size:)	0070					
1				Hydrophytic		
2				Vegetation Present? Yes	⊠ No □	
9/ Para Cround in Harb Stratum		= Total C	Cover			
% Bare Ground in Herb Stratum Remarks: Vegetation community dominated by FAC plant	species with	h OBL sne	cies present	Forested mosaic system	so a couple of FACU spe	cies
also present	opeoles with	ii OBL opo	oloo proociii	Torodou modulo dyddom	oo a couple of 17100 oper	0100

Profile Desc	cription: (Describe	e to the de	epth needed to do	cument the	indicator	or confirm	n the al	sence of indicators.)
Depth	Matrix		Re	dox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	_Textu	re Remarks
0-9"	10YR 2/2	100%					peat	histic epipedon
9-16"	10YR 41	100%					fisalo	
								· ·
-								
·	•		-					
								·
	-	_						 -
·	•		-					
			M=Reduced Matrix,			ed Sand Gr		² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to a	II LRRs, unless ot	herwise not	ed.)		li	ndicators for Problematic Hydric Soils ³ :
☐ Histosol	, ,		☐ Sandy Redox					2 cm Muck (A10)
-	pipedon (A2)		☐ Stripped Mat	, ,				Red Parent Material (TF2)
Black Hi			Loamy Muck			MLRA 1)		Other (Explain in Remarks)
	n Sulfide (A4)		Loamy Gleye	•)			
	Below Dark Surface	ce (A11)	☐ Depleted Ma				3.	
	rk Surface (A12)		Redox Dark	` ,			اد	Indicators of hydrophytic vegetation and
-	lucky Mineral (S1)		☐ Depleted Da	•	7)			wetland hydrology must be present,
	leyed Matrix (S4)		☐ Redox Depre	ssions (F8)				unless disturbed or problematic.
	Layer (if present):							
Type:			_					
Depth (in	, -		_				Hydi	ric Soil Present? Yes 🛛 No 🗌
Remarks: Lo	w matrix chroma in	lower hor	izon with a peaty hi	stic epipedor	n at the su	rface.		
LIV/DD 01 0	0 1/							
HYDROLO								
Wetland Hy	drology Indicators	s:						
Primary Indi	cators (minimum of	one requir	ed; check all that a	oply)				Secondary Indicators (2 or more required)
☐ Surface	Water (A1)		☐ Water-S	tained Leave	es (B9) (e :	cept MLF	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ter Table (A2)		1, 2,	4A, and 4B)			4A, and 4B)
	on (A3)		☐ Salt Cru	st (B11)				☐ Drainage Patterns (B10)
☐ Water M	arks (B1)		☐ Aquatic	Invertebrate	s (B13)			☐ Dry-Season Water Table (C2)
☐ Sedimer	t Deposits (B2)		☐ Hydroge	en Sulfide Od	dor (C1)			☐ Saturation Visible on Aerial Imagery (C9)
☐ Drift Dep	osits (B3)			d Rhizosphe		Living Roo	ts (C3)	☐ Geomorphic Position (D2)
-	t or Crust (B4)			e of Reduce	_	•	,	☐ Shallow Aquitard (D3)
_	osits (B5)			Iron Reduction)	☐ FAC-Neutral Test (D5)
-	Soil Cracks (B6)			or Stressed		,	,	☐ Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imagery (I		Explain in Re		., (=:::: 7:)	'	Frost-Heave Hummocks (D7)
	Vegetated Concav		,	-Apiaiii iii ito	manto)			Troot ricave riginimosks (27)
Field Obser	=	Counado	(50)					
Surface Wat		Yes □ 1	No M. Donth (incl	200):				
		_	No Depth (incl					
Water Table				nes): <u>@10"</u>				
Saturation P		Yes ⊠ 1	No Depth (incl	nes): <u>@ surfa</u>	ace	Wetl	and Hy	drology Present? Yes ⊠ No □
(includes car		m daude ir	nonitoring well, aer	al photos pr	evious ins	nections)	if availa	able.
	Data (0110di	54490, 1		p. 10100, pi	2Jud iile	, conono),	474110	
Domorko: 144	otland Hudralass: -	rocont as a	coil continuation with	oile maist t-	the curfe	20 20 in t	iool of a	poturated cloping forested massis systems
Remarks: W	епапо пустоюду р	resent as s	son saturation with s	ot telom ello	пе ѕипас	e as is typ	ncal of s	saturated sloping forested mosaic systems.

Project/Site: Bond Road/SR 305		City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11-20	10 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 2	-A
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local reli	ef (concave	, convex, none): sloping	Slope (%	s): <u>5%</u>
Subregion (LRR): MLRA 2						
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-						
Are climatic / hydrologic conditions on the site typical for the					-	
Are Vegetation, Soil, or Hydrology si	-			ormal Circumstances" pres	ent? Yes⊠ No∏	
Are Vegetation, Soil, or Hydrology na				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map						es, etc.
Hydrophytic Vegetation Present? Yes ☐ No ⊠	1					
Hydric Soil Present? Yes ☐ No ⊠			he Sampled		- 57	
Wetland Hydrology Present? Yes ☐ No ⊠		With	nin a Wetlar	nd? Yes ☐ No) <u>N</u>	
Remarks: Upland area on slope above delineated wetlar	nd boundary a	at WB A-3.				
VEGETATION – Use scientific names of pla	nts.					
Tree Stratum (Plot size: 30' diameter)	Absolute % Cover		t Indicator Status	Dominance Test works		
1. Frangula purshiana		Yes		Number of Dominant Spo That Are OBL, FACW, or		(A)
Acer macrophyllum	5 0/	Yes	FACU	Total Number of Domina	int	
3	_			Species Across All Strata		(B)
4	_			Percent of Dominant Spe	acias	
Sapling/Shrub Stratum (Plot size: 30' diameter)	10%	= Total C	Cover	That Are OBL, FACW, or		(A/B)
1. Rubus spectabilis	10%	Yes	FAC	Prevalence Index work	sheet:	
2. Mahonia nervosa	10%	Yes	FACU	Total % Cover of:	Multiply by:	
3. <u>Sambucus racemosa</u>	5%	Yes	FACU	OBL species		
4. Oemleria cerasiformis			FACU	FACW species		
5. Vaccinium parvifolium				FAC species		
Herb Stratum (Plot size: 30 feet)	35%	= Total C	Cover	FACU species		
Polystichum munitum	50%	Yes	FACU	UPL species		
Rubus ursinus				Column Totals:	(A)	(B)
3.				Prevalence Index	= B/A =	
4.				Hydrophytic Vegetation	n Indicators:	
5	_			☐ Dominance Test is >	50%	
6				☐ Prevalence Index is		
7				Morphological Adapt		
8	-	<u> </u>		□ Wetland Non-Vascul	or on a separate shee	i)
9				☐ Problematic Hydroph		ain)
10	-			¹ Indicators of hydric soil	, , ,	,
11				be present, unless distur		made
Woody Vine Stratum (Plot size:)	60%	= Total C	Cover			
1. Rubus armeniacus	5%	Yes	FΔC	Hydrophytic		
2		163	IAC	Vegetation		
		= Total C	Cover	Present? Yes	□ No ⊠	
% Bare Ground in Herb Stratum 40	·	-				
Remarks: The hydrophytic vegetation criterion is not met	because the	re is less th	han 50% do	minance by FAC species.		

(inches)	Color (moist)	%	Colo	or (moist) <u>% Type¹ I</u>	_oc ² Text	ure Remarks
, , , , , , , , , , , , , , , , , , , ,	10YR 2/2	100%		// (moist)/6		
		_			<u>loam</u>	
3-16"	10YR 4/3	100%			gr. sa	a lo
						
Type: C=Co	ncentration, D=Dep	oletion, F	- ≀M=Red	luced Matrix, CS=Covered or Coated	Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
				s, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)			Sandy Redox (S5)		☐ 2 cm Muck (A10)
☐ Histic Epi	pedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
Black Hist				Loamy Mucky Mineral (F1) (except M	LRA 1)	Other (Explain in Remarks)
_ , .	Sulfide (A4)	(8.4.4)		Loamy Gleyed Matrix (F2)		
	Below Dark Surfac	e (A11)		Depleted Matrix (F3)	:	31
	k Surface (A12) ucky Mineral (S1)			Redox Dark Surface (F6) Depleted Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
	eyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
-	ayer (if present):			1000x 2 op:000.010 (1 0)		annoce dictarized or problematics
	, , ,					
• •	hes):				Hvd	Iric Soil Present? Yes □ No ⊠
					, ,	
Remarks: The	e hydric soil criterio	n is not r	met bec	ause of the high chroma of the soil pro	file.	
	,	n is not r	met bec	ause of the high chroma of the soil pro	ofile.	
YDROLOG	,		met bec	ause of the high chroma of the soil pro	file.	
YDROLOG	GY	:			ifile.	Secondary Indicators (2 or more required)
YDROLO(Wetland Hyd Primary Indica	GY Irology Indicators: ators (minimum of o	:		eck all that apply)		
YDROLOG Wetland Hyd Primary Indica	GY Irology Indicators: ators (minimum of o	:				
YDROLOG Wetland Hyd Primary Indica	GY Irology Indicators: ators (minimum of of other (A1) er Table (A2)	:		eck all that apply) Water-Stained Leaves (B9) (exce		☐ Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOC Wetland Hyd Primary Indica Surface W	GY Irology Indicators: ators (minimum of of other (A1) er Table (A2) n (A3)	:		eck all that apply) Water-Stained Leaves (B9) (exce		☐ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLOG Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma	GY Irology Indicators: ators (minimum of of other (A1) er Table (A2) n (A3)	:		eck all that apply) Water-Stained Leaves (B9) (exceed 1, 2, 4A, and 4B) Salt Crust (B11)		☐ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2)
YDROLOG Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma	Irology Indicators: ators (minimum of oter (A1) er Table (A2) n (A3) urks (B1) E Deposits (B2)	:		eck all that apply) Water-Stained Leaves (B9) (excellent 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	ept MLRA	 □ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS)
YDROLOG Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of oter (A1) er Table (A2) n (A3) urks (B1) E Deposits (B2)	:		eck all that apply) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ept MLRA	 □ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS)
YDROLOG Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of or Vater (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) osits (B3) or Crust (B4)	:		eck all that apply) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	ept MLRA	□ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
YDROLOG Wetland Hyd Primary Indica Surface W High Wate Saturation Water Ma Sediment Drift Depo	Irology Indicators: ators (minimum of or Vater (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) osits (B3) or Crust (B4)	:		eck all that apply) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)	ept MLRA ing Roots (C3) oils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation	rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) arks (B1) r Deposits (B2) posits (B3) or Crust (B4) posits (B5) Goil Cracks (B6) n Visible on Aerial I	: one requ	ired; che	eck all that apply) Water-Stained Leaves (B9) (excellent 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	ept MLRA ing Roots (C3) oils (C6)	□ Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
YDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	Irology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) Goil Cracks (B6) n Visible on Aerial I Vegetated Concave	: one requ	ired; che	eck all that apply) Water-Stained Leaves (B9) (excellent 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) (ept MLRA ing Roots (C3) oils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	Irology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) Goil Cracks (B6) n Visible on Aerial I Vegetated Concave	: one requ	ired; che	eck all that apply) Water-Stained Leaves (B9) (excert, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) (C4) Other (Explain in Remarks)	ept MLRA ing Roots (C3) oils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely	Irology Indicators: ators (minimum of orvater (A1) er Table (A2) in (A3) irks (B1) ir Deposits (B2) irsits (B3) or Crust (B4) irsits (B5) irsits (B5) irsits (B6) in Visible on Aerial I Vegetated Concaverations:	: one requ magery e Surface	ired; che	eck all that apply) Water-Stained Leaves (B9) (excellent 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) (ept MLRA ing Roots (C3) oils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOG Wetland Hyd Primary Indica Surface W High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundation Sparsely Field Observ Surface Water	Irology Indicators: ators (minimum of or Vater (A1) er Table (A2) in (A3) arks (B1) in Deposits (B2) in Crust (B4) in Crust (B4) in Visible on Aerial If Vegetated Concave arations: in Present?	: one requ magery e Surface	(B7) e (B8)	eck all that apply) Water-Stained Leaves (B9) (excert, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunted or Stressed Plants (D1) (C4) Other (Explain in Remarks)	ept MLRA ing Roots (C3) oils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2
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Project/Site: Bond Road/SR 305		City/Coun	ity: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/201	0 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 3-	Α
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local rel	ief (concave,	, convex, none): sloping	Slope (%)): <u>5%</u>
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes⊠ No □	
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map						es, etc.
Liberton houting Volumetation Drawnard Volume M. No. 7						
Hydrophytic Vegetation Present? Yes ⊠ No ☐ Hydric Soil Present? Yes ☐ No ☑			he Sampled		_	
Wetland Hydrology Present? Yes □ No ☒		wit	hin a Wetlar	nd? Yes □ N	o 🛛	
Remarks: Upland within a short dry trough that extends do located just upslope of WB A-12 and A-13.	wnslope fro	m the leve	el upland occ	cupying the western portion	ns of the site. Specificall	ly
located just upslope of WB A-12 and A-13.						
VEGETATION – Use scientific names of plant	ts.					
			nt Indicator	Dominance Test works	heet:	-
Tree Stratum (Plot size: 30' diameter) 1. Frangula purshiana		•	? Status	Number of Dominant Sp That Are OBL, FACW, o		(4)
Frangula purshiana						(A)
3.				Total Number of Domina Species Across All Strat		(B)
4.						(2)
	5%			Percent of Dominant Spe That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 30' diameter)						
1. Rubus spectabilis	25%			Prevalence Index work		
2. <u>Sambucus racemosa</u>			FACU	OBL species	Multiply by:	
3				FACW species		
5				FAC species		
	30%			FACU species		
Herb Stratum (Plot size: 30 feet)				UPL species	x 5 =	
1. Polystichum munitum	25%	Yes	<u>FACU</u>	Column Totals:	(A)	(B)
2. Dryopteris expansa			FACW	Prevalence Index	= B/A =	
3. <u>Tiarellia trifoliata</u>				Hydrophytic Vegetation		
4				Dominance Test is >		
6.				☐ Prevalence Index is	3.0 ¹	
7					tations ¹ (Provide suppor	
8					or on a separate sheet)
9				☐ Wetland Non-Vascul		.:\
10				☐ Problematic Hydroph ¹Indicators of hydric soil		•
11				be present, unless distu		must
Woody Vine Stratum (Plot size:)	45%	= Total	Cover			
1				Hydrophytic		
2				Vegetation		
				Present? Yes	No □	
% Bare Ground in Herb Stratum <u>55</u>						
Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater th	han 50% don	ninance by FAC species.		

Depth (inches)	Matrix Color (moist)	%	Colo	or (moist) % Type ¹ Lo	c ² Textu	ıre Remarks
0-9"	10YR 2/2	100%				
					loam	
9-16"	10YR 4/4	100%			gr. sa	lo
16	10YR 4/3	100%			gr sa l	lo
	-					
-						
				duced Matrix, CS=Covered or Coated Sa		² Location: PL=Pore Lining, M=Matrix.
-		licable to		s, unless otherwise noted.)		ndicators for Problematic Hydric Soils ³ :
Histoso	, ,			Sandy Redox (S5)	_	2 cm Muck (A10)
	pipedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
	istic (A3) en Sulfide (A4)			Loamy Mucky Mineral (F1) (except MLI Loamy Gleyed Matrix (F2)	KA1) L	Other (Explain in Remarks)
	en Sullide (A4) d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)		
	ark Surface (A12)	100 (/111)		Redox Dark Surface (F6)	3	Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark Surface (F7)		wetland hydrology must be present,
	Gleyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
Restrictive	Layer (if present)	:				
Type:						
Depth (ir	nches):				Hydi	ric Soil Present? Yes □ No ⊠
	, -					
Remarks: T	he hydric soil criter		met bec	ause of the high chroma of the soil profi	'	
	,		met bec	ause of the high chroma of the soil profi	'	
YDROLO	,	ion is not	met bec	ause of the high chroma of the soil profi	'	
IYDROLO	DGY	rs:			'	Secondary Indicators (2 or more required)
YDROLC Wetland Hy	DGY ydrology Indicator icators (minimum c	rs:		eck all that apply)	le.	Secondary Indicators (2 or more required)
IYDROLO Wetland Hy Primary Ind	OGY ydrology Indicator	rs:			le.	
YDROLO Wetland Hy Primary Ind Surface High Wa	OGY ydrology Indicator icators (minimum of Water (A1) ater Table (A2)	rs:		eck all that apply)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
YDROLC Wetland Hy Primary Ind □ Surface □ High Wi	OGY ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3)	rs:		eck all that apply) ☐ Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
YDROLO Wetland Hy Primary Ind Surface High Water Mater	OGY ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3)	rs:		eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLO Wetland Hy Primary Ind Surface High Wa Saturati Water M	OGY ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1)	rs:		eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	ot MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
YDROLO Wetland Hy Primary Ind Surface High Water M Sedime Drift De	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	rs:		eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ot MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C
Wetland Hy Primary Ind Surface High Water N Sedime Drift De Algal Ma	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)	rs:		eck all that apply) Water-Stained Leaves (B9) (exceptorm 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin	ot MLRA g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C) Geomorphic Position (D2)
YDROLO Wetland Hy Primary Ind Surface High Wa Saturati Water N Sedime Drift De Algal Ma	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	rs:		eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4)	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3)
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IYDROLO Wetland Hy Primary Ind Surface High Water M Sedime Drift De Algal Mater M Iron De Surface Inundati Sparsel	ody Idrology Indicator I	rs: of one requ	uired; ch	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Project/Site: Bond Road/SR 305	(City/County	/: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/201	0 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 4-	A
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): sloping	Slope (%)): <u>5%</u>
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30						
Are climatic / hydrologic conditions on the site typical for this					· · · · · · · · · · · · · · · · · · ·	
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes⊠ No□	
Are Vegetation, Soil, or Hydrology natu	-			ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map			•		,	es, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒					-	
Hydric Soil Present? Yes ☐ No ☒			e Sampled		- 57	
Wetland Hydrology Present? Yes ☐ No ☒		with	ın a Wetlar	nd? Yes □ No) 🛚	
Remarks: Upland at lower end (ends at the wetland bound				nds downslope from the lev	vel upland occupying th	ie
western portions of the site. Specifically located just upslop	oe of WB A-	20 and A-2	:1.			
VEGETATION - Use scientific names of plan	ts.					
	Absolute			Dominance Test works	heet:	
Tree Stratum (Plot size: 30' diameter)	% Cover			Number of Dominant Spo		
Pseudotsuga menziesii				That Are OBL, FACW, or	r FAC: 1	(A)
2				Total Number of Domina		(5)
3				Species Across All Strata	a: <u>5</u>	(B)
4		= Total C		Percent of Dominant Spe		(4.5)
Sapling/Shrub Stratum (Plot size: 30' diameter)	<u>370</u>	= Total C	ovei	That Are OBL, FACW, or	r FAC: 20	(A/B)
1. Oemleria cerasiformis	20%	Yes	FACU	Prevalence Index work	sheet:	
2. Rubus spectabilis	5%	Yes	FAC	Total % Cover of:	Multiply by:	
3				OBL species	x 1 =	_
4				FACW species		
5				FAC species		
Herb Stratum (Plot size: 30 feet)	<u>25%</u>	= Total C	over	FACU species		
Polystichum munitum	35%	Yes	FACII	UPL species		
Rubus ursinus	15%	Yes	FACU	Column Totals:	(A)	(B)
Athyrium filix-femina				Prevalence Index	= B/A =	
4				Hydrophytic Vegetation	n Indicators:	
5				☐ Dominance Test is >	50%	
6				☐ Prevalence Index is	3.0 ¹	
7				☐ Morphological Adapt		
8				☐ Wetland Non-Vascul	or on a separate sheet)
9					nytic Vegetation ¹ (Expla	in)
10				¹ Indicators of hydric soil	, , ,	,
11				be present, unless distur		mast
Woody Vine Stratum (Plot size:)	55%	= Total C	over			
1				Hydrophytic		
2				Vegetation		
		= Total C		Present? Yes	□ No ⊠	
% Bare Ground in Herb Stratum 45						
Remarks: The hydrophytic vegetation criterion was not me	t because th	nere is less	than 50% of	cover by FAC species.		

Depth (inches)	Matrix Color (moist)	%	Colo	Redox Features or (moist) % Type ¹ Lo	oc² Te	xture Remarks
-	, ,			or (moist) /6 Type Lo		
0-4"	10YR 2/2	100%			<u>loar</u>	
4-13"	10YR 4/4	100%			<u>gr. s</u>	sa lo
<u>13-</u>	10YR 4/3	100%			<u>grs</u>	a lo
	-					
, ·	•			duced Matrix, CS=Covered or Coated S	and Grains	<u> </u>
Hydric Soil	Indicators: (App	licable to	all LRR	ts, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histoso	, ,			Sandy Redox (S5)		2 cm Muck (A10)
	pipedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
	listic (A3)			Loamy Mucky Mineral (F1) (except ML	.RA 1)	Other (Explain in Remarks)
	en Sulfide (A4) ed Below Dark Surfa	200 (411)		Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		
	ark Surface (A12)	ace (ATT)		Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark Surface (F7)		wetland hydrology must be present,
	Gleyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
Restrictive	Layer (if present)):		• • • • • • • • • • • • • • • • • • • •		·
Type:						
Depth (ir	nches):				H	ydric Soil Present? Yes ☐ No 🏻
Remarks: T	he hydric soil criter	rion is not r	met hec	ause of the high chroma of the soil prof	file	
HYDROLO	OGY					
	OGY ydrology Indicator	rs:				
Wetland Hy			iired; ch	eck all that apply)		Secondary Indicators (2 or more required)
Wetland Hy	ydrology Indicator		ired; ch	eck all that apply) Water-Stained Leaves (B9) (exceptions)	pt MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Ind Surface	ydrology Indicator licators (minimum o		iired; ch		pt MLRA	
Wetland Hy Primary Ind Surface	ydrology Indicator icators (minimum o Water (A1) ater Table (A2)		ired; ch	☐ Water-Stained Leaves (B9) (exceptions)	pt MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Ind ☐ Surface ☐ High Wa	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3)		ired; ch	☐ Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B)	pt MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary Ind ☐ Surface ☐ High Wa ☐ Saturati ☐ Water M	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3)		iired; ch	 Water-Stained Leaves (B9) (except1, 2, 4A, and 4B) Salt Crust (B11)	pt MLRA	
Wetland Hy Primary Ind □ Surface □ High Wa □ Saturati □ Water M □ Sedime	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1)		iired; ch	☐ Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13)		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hy Primary Ind ☐ Surface ☐ High Water Now Sedime ☐ Drift De	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2)		iired; ch	 Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
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Wetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4)		iired; ch	Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	ng Roots (C	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Wetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	of one requ		Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So	ng Roots (C	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Wetland Hy Primary Ind Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Surface	ydrology Indicator icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) s Soil Cracks (B6)	of one requ	(B7)	 Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Stunted or Stressed Plants (D1) (L 	ng Roots (C	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Project/Site: Bond Road/SR 305		City/County	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010	6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 5-A	\
Investigator(s): <u>J. Bartlett</u>						
Landform (hillslope, terrace, etc.): hillslope		_ Local relie	ef (concave	, convex, none): sloping	Slope (%):	5%
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-3						
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrology sig	•				ent? Yes⊠ No □	
Are Vegetation, Soil, or Hydrology nati				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map					,	s, etc.
Hydrophytic Vegetation Present? Yes ⊠ No □		le th	ie Sampled	I Aroa	-	
Hydric Soil Present? Yes ☐ No ☒			in a Wetlar		n 🕅	
Wetland Hydrology Present? Yes ☐ No ☒					_	
Remarks: About 75 feet up the long dry trough that ends a water flow or wetland conditions.	at wetland bo	oundary be	tween WB /	A-20 and WB A-21. Upland	trough with no evidence	e of
water now or wettand conditions.						
VEGETATION – Use scientific names of plan						
Tree Stratum (Plot size: 30' diameter)		Dominant Species?		Dominance Test works		
1. Alnus rubra				Number of Dominant Spo That Are OBL, FACW, or		(A)
2.						()
3				Total Number of Domina Species Across All Strata		(B)
4				Percent of Dominant Spe	ncins	
Sapling/Shrub Stratum (Plot size: 30' diameter)	<u>15%</u>	= Total C	over	That Are OBL, FACW, or		(A/B)
1. Rubus spectabilis	40%	Yes	FAC	Prevalence Index work	sheet:	
2. Sambucus racemosa	5%	No	FACU		Multiply by:	
3				OBL species		
4				FACW species		
5		= Total C		FAC species		
Herb Stratum (Plot size: 30 feet)	45%	= 10(a) C	over	UPL species		
1. Polystichum munitum	25%	Yes	<u>FACU</u>	Column Totals:		
2. Rubus ursinus	15%	Yes	FACU			_ \ /
3. <u>Dryopteris expansa</u>	10%	Yes	FACW		= B/A =	
4				Hydrophytic Vegetation		
5				☑ Dominance Test is >☐ Prevalence Index is		
6				☐ Morphological Adapt		rina
7					or on a separate sheet)	
8 9				☐ Wetland Non-Vascul		
10.				_ , ,	nytic Vegetation ¹ (Explair	,
11.				¹ Indicators of hydric soil be present, unless distur		nust
		= Total C		be present, unless distur	bed of problematic.	
Woody Vine Stratum (Plot size:)						
1				Hydrophytic Vegetation		
2					⊠ No □	
% Bare Ground in Herb Stratum 50		= Total C	over			
Remarks: The hydrophytic vegetation criterion is met beca	ause there is	greater that	an 50% cov	er by FAC and FACW spec	cies.	
				·		

Depth (inches)	Matrix Color (moist)	%	Colo	Redox Features or (moist) % Type ¹	c ² Textu	ire Remarks
, , , ,	, , ,			// ///////////////////////////////////		<u>Remarks</u>
	10YR 2/2	100%			<u>loam</u>	
6-14" <u></u>	10YR 4/4	100%			gr. sa	lo
<u>14-</u>	10YR 4/3	100%			gr sa l	0
T C. Co.	tration D Don			was d Matrix CC Covered on Control C		21 aceticas DI Dave Linia e M Matrix
, ,		-		uced Matrix, CS=Covered or Coated Sa s, unless otherwise noted.)		² Location: PL=Pore Lining, M=Matrix. ndicators for Problematic Hydric Soils ³ :
☐ Histosol (A				Sandy Redox (S5)		☐ 2 cm Muck (A10)
•	pedon (A2)			Stripped Matrix (S6)	_	☐ Red Parent Material (TF2)
Black Histi	` '			_oamy Mucky Mineral (F1) (except ML	RA 1)	Other (Explain in Remarks)
☐ Hydrogen	Sulfide (A4)		□ L	_oamy Gleyed Matrix (F2)		
	Below Dark Surface	(A11)		Depleted Matrix (F3)		
	k Surface (A12)			Redox Dark Surface (F6)	3	Indicators of hydrophytic vegetation and
	cky Mineral (S1)			Depleted Dark Surface (F7)		wetland hydrology must be present,
	eyed Matrix (S4) ayer (if present):		Ц,	Redox Depressions (F8)		unless disturbed or problematic.
	, , ,					
	>		_		I Is sale	ric Soil Present? Yes ☐ No ⊠
					n vai	ric Soil Present? Yes ☐ No ☒
. `	nes):		— net beca	ause of the high chroma of the soil profi	•	
Remarks: The	hydric soil criterior		net beca	ause of the high chroma of the soil profi	•	
Remarks: The	hydric soil criterior	n is not m	net beca	ause of the high chroma of the soil profi	•	
Remarks: The	hydric soil criterior SY rology Indicators:	n is not m			•	
Remarks: The YDROLOG Wetland Hydr Primary Indica	hydric soil criterior SY rology Indicators: ators (minimum of o	n is not m		eck all that apply)	le.	Secondary Indicators (2 or more required)
YDROLOG Wetland Hydr Primary Indica Graph Surface W	GY rology Indicators: ators (minimum of o	n is not m		eck all that apply) Water-Stained Leaves (B9) (excep	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2
YDROLOG Wetland Hydr Primary Indica Surface W High Wate	hydric soil criterior SY rology Indicators: ators (minimum of o	n is not m		eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation	Frology Indicators: ators (minimum of or dater (A1) ar Table (A2)	n is not m		eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Mar	rology Indicators: ators (minimum of or dater (A1) er Table (A2) (A3) rks (B1)	n is not m		eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
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Project/Site: Bond Road/SR 305		City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 6-A
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave	, convex, none): sloping	Slope (%): <u>5%</u>
Subregion (LRR): MLRA 2	_ Lat:			_ Long:	Datum:
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes ⊠ No □
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes ⊠ No □					
Hydric Soil Present? Yes ⊠ No □			e Sampled		, n
Wetland Hydrology Present? Yes ⊠ No □		With	ın a wetiai	nd? Yes⊠ No	<i>,</i>
Remarks: Forested mosaic wetland area below the dry troe 6-17-16 and all flags were observed. No changes have occompleted. VEGETATION – Use scientific names of plant	curred to the	d at Test H e wetland	oles 4-A an coundary or	d 5-A and near WB A-22. If the wetland itself since the	Wetland boundary verified on e 2010 delineation was
	Absolute	Dominant	Indicator	Dominance Test works	heet:
<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	% Cover			Number of Dominant Spe	
1. Alnus rubra		Yes	FAC	That Are OBL, FACW, or	r FAC: <u>5</u> (A)
2. Thuja plicata 3				Total Number of Domina Species Across All Strata	
4		= Total C		Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 30' diameter)					, ,
1. Rubus spectabilis				Prevalence Index works	
2					Multiply by: x 1 =
3				FACW species	
4					x 3 =
<u> </u>		= Total C			x 4 =
Herb Stratum (Plot size: 30 feet)	,	. 014.		UPL species	
1. Rubus ursinus	30%	Yes	<u>FACU</u>	Column Totals:	(A) (B)
2. Carex obnupta	20%	Yes	OBL		
3. Athyrium filix-femina	20%	Yes	<u>FAC</u>		= B/A =
4. Blechnum spicant	15%	No	<u>FAC</u>	Hydrophytic Vegetation	
5. <u>Lysichiton americanum</u>	10%	No	OBL	☑ Dominance Test is >☑ Prevalence Index is	
6. <u>Dryopteris expansa</u> 7				☐ Morphological Adapt	ations ¹ (Provide supporting or on a separate sheet)
8				☐ Wetland Non-Vascul	
9					nytic Vegetation ¹ (Explain)
10			-		and wetland hydrology must
11				be present, unless distur	
Woody Vine Stratum (Plot size:)		= Total C			
1				Hydrophytic Vegetation	
2		= Total C	over		⊠ No □
% Bare Ground in Herb Stratum		- Total C	- V V I		
Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater th	an 50% cov	er by FAC and OBL specie	es.

Depth (inches)	Color (moist)	%	_ Coid	or (moist)	%	Type ¹	Loc ²	_Textu	r <u>e</u>		Rema	arks_	
)-16"	10YR 2/2	100%				- / /		peat					
10	1011(2/2	10078						pear					
			_										
			_										
,,	oncentration, D=De			•			ed Sand G					ning, M=Matri	
lydric Soil I	Indicators: (Appl	icable to	all LRR	s, unless other	wise noted	d.)		In	dicato	rs for Pr	oblemati	c Hydric Soils	s ³ :
Histosol				Sandy Redox (S	S5)				_	Muck (A	,		
	ipedon (A2)			Stripped Matrix	` '						laterial (T	,	
Black His	` '			Loamy Mucky M		(except	MLRA 1)] Othe	r (Explair	n in Rema	arks)	
	n Sulfide (A4)	(0.44)		Loamy Gleyed N	` ,								
•	Below Dark Surfa rk Surface (A12)	ice (A11)	_	Depleted Matrix	` '			31.					
_	ucky Mineral (S1)			Redox Dark Sur Depleted Dark S	, ,	`						regetation and be present,	
•	leyed Matrix (S4)			Redox Depressi	` '	,				-	ed or prob		
	_ayer (if present):	<u> </u>	ш.	redex Depressi	0110 (1 0)				unico	3 distarbe	ou or proc	nomatio.	
_	-шуст (п. р. ссети).												
	ches):							Hydr	اندی دا	Drosont'	? Yes [⊠ No □	
	e soil profile revea			t least 16 inches	s deep with	hydroge	en sulfide d	odor emi	tted so	it exhibits	s characte	eristics for hyd	ric s
dicators A1	e soil profile revea and A4.	led orgar		t least 16 inches	s deep with	hydroge	en sulfide o	odor emi	tted so	it exhibits	s characte	eristics for hyd	ric so
YDROLO	e soil profile revea and A4. GY drology Indicator	aled organ	nic soil a			hydroge	en sulfide o	odor emit					
YDROLO Vetland Hydrimary Indic	e soil profile revea and A4. GY drology Indicators eators (minimum of	aled organ	nic soil a	eck all that appl	у)				Secon	dary Indi	icators (2	or more requi	red)
OROLO /etland Hydrimary Indic Surface	GY drology Indicators eators (minimum of	aled organ	nic soil a	eck all that appl ☐ Water-Stai	y) ned Leaves				Secon	idary Indi ater-Stair	icators (2 ned Leave		red)
TDROLO Tetland Hydrimary Indic Surface \ High Wat	GY drology Indicator cators (minimum of Water (A1) ter Table (A2)	aled organ	nic soil a	eck all that appl ☐ Water-Stai 1, 2, 4	y) ned Leaves A, and 4B)				Secon	idary Indi ater-Stair 4A, and	icators (2 ned Leave	or more requi es (B9) (MLR A	red)
/DROLO /etland Hyorimary Indic Surface \ High Wat	GY drology Indicator: eators (minimum of Water (A1) ter Table (A2) in (A3)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 44	y) ned Leaves A, and 4B) (B11)	s (B9) (e			Secon W:	idary Indi ater-Stair 4A, anc ainage P	icators (2 ned Leave d 4B) latterns (E	or more requi es (B9) (MLRA 310)	red)
/DROLO /etland Hydrimary Indic Surface \ High Wat Saturatio Water Ma	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 4,4 Salt Crust Aquatic Inv	y) ned Leaves A, and 4B) (B11) rertebrates	(B9) (e			Secon War	idary Indi ater-Stair 4A, and ainage P y-Seasor	icators (2 ned Leave i 4B) ratterns (E	or more requies (B9) (MLR 4810) Sable (C2)	r <u>ed)</u> \ 1, 2
/DROLO /etland Hydrimary Indic] Surface \(\) High Wat 3 Saturatio] Water Ma 3 Sedimen	GY drology Indicator cators (minimum of Water (A1) ter Table (A2) nn (A3) arks (B1) t Deposits (B2)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv. Hydrogen	y) ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo	(B13) (B13)	xcept MLI	RA	Secon Will Dr Dr Sa	idary Indi ater-Stair 4A, anc ainage P y-Seasor ituration \	icators (2 ned Leave 1 4B) atterns (E n Water T Visible on	or more requi es (B9) (MLRA 310) able (C2)	r <u>ed)</u> \ 1, 2
/ DROLO / Vetland Hyd rimary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	GY drology Indicator (ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen	y) ned Leaves A, and 4B) (B11) rertebrates of Sulfide Odo hizosphere	(B13) or (C1) s along	xcept MLI	RA	Secon Wi Dr Dr Sa Gee	idary Indi ater-Stair 4A, and ainage P y-Seasor ituration v	icators (2 ned Leave 1 4B) latterns (E n Water T Visible on c Position	or more requi es (B9) (MLRA 310) fable (C2) n Aerial Imager n (D2)	r <u>ed)</u> \ 1, 2
/DROLO /etland Hydrimary Indic Surface \(\) High Wat Saturatio Water Mater	GY drology Indicator extors (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen 3 Oxidized R	y) ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere	(B13) or (C1) s along Iron (C4	xcept MLI Living Roo	RA ots (C3)	Secon Wi Dr Dr Se Ge Sr	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation v comorphi allow Aq	icators (2 ned Leave id 4B) ratterns (E n Water T Visible on c Position uitard (D3	or more requi es (B9) (MLRA 310) fable (C2) a Aerial Imager o (D2)	r <u>ed)</u>
/DROLO /etland Hydrimary Indic Surface \(\) High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	aled organ	nic soil a	eck all that appl Water-Stai 1, 2, 4,4 Salt Crust Aquatic Inv Hydrogen: Oxidized R Presence o	y) ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere of Reduced n Reduction	(B13) or (C1) s along Iron (C4	xcept MLI Living Roo	RA ots (C3)	Secon Wi Dr Dr Sa Ge St FA	adary Indi ater-Stair 4A, anc ainage P y-Seasor aturation v eomorphi allow Aq AC-Neutra	icators (2 ned Leave d 4B) atterns (E n Water T Visible on c Position uitard (D3 al Test (D	or more requies (B9) (MLRA B10) Cable (C2) A Aerial Imager D (D2) CB)	r <u>ed)</u>
YDROLO Vetland Hyd Timary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo	GY drology Indicator eators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6)	s: f one requ	uired; ch	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S Oxidized R Presence C Recent Iron Stunted or	y) ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere of Reduced in Reduction Stressed P	(B13) or (C1) s along Iron (C4 n in Tilled lants (D	xcept MLI Living Roo	RA ots (C3)	Secon Will Dr Dr Se Ge Sr FA	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation v comorphi allow Aq AC-Neutra aised Ant	icators (2 ned Leave 1 4B) ratterns (E n Water T Visible on c Position uitard (D3 al Test (D Mounds	or more requi es (B9) (MLRA 310) fable (C2) A Aerial Imagel o (D2) 3) 5) (D6) (LRR A)	r <u>ed)</u>
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YDROLO Vetland Hyd Surface V Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo Surface S Inundatic	GY drology Indicator: eators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concar vations:	s: f one require	uired; ch	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen : Oxidized R Presence o Recent Iroi Stunted or Other (Exp	ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere of Reduced n Reduction Stressed P lain in Rem	(B13) or (C1) s along Iron (C4 n in Tilled lants (D	xcept MLI Living Roo	RA ots (C3)	Secon Will Dr Dr Se Ge Sr FA	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation v comorphi allow Aq AC-Neutra aised Ant	icators (2 ned Leave 1 4B) ratterns (E n Water T Visible on c Position uitard (D3 al Test (D Mounds	or more requi es (B9) (MLRA 310) fable (C2) A Aerial Imagel o (D2) 3) 5) (D6) (LRR A)	r <u>ed)</u>
YDROLO Vetland Hyd Surface V High Wat Sedimen Orift Dep Algal Ma Iron Depo Surface S Inundatio	GY drology Indicator: eators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present?	s: f one require Surface	uired; chu	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves A, and 4B) (B11) vertebrates Sulfide Odo hizosphere of Reduced n Reduction Stressed P lain in Rem	(B13) or (C1) s along Iron (C4 or in Tiller lants (D	xcept MLI Living Roo	RA ots (C3)	Secon Will Dr Dr Se Ge Sr FA	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation v comorphi allow Aq AC-Neutra aised Ant	icators (2 ned Leave 1 4B) ratterns (E n Water T Visible on c Position uitard (D3 al Test (D Mounds	or more requi es (B9) (MLRA 310) fable (C2) A Aerial Imagel o (D2) 3) 5) (D6) (LRR A)	r <u>ed)</u>
YDROLO Wetland Hyd Ydrimary Indic Surface V High Water Ma Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatic Sparsely Geld Observ Surface Water Table	e soil profile reveal and A4. GY drology Indicator cators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concar vations: er Present? Present?	s: f one requirements I Imagery ve Surface Yes Yes	uired; chu (B7) e (B8) No 🏻	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or Other (Exp	y) ned Leaves A, and 4B) (B11) rertebrates of Reduced in Reduction Stressed Plain in Rem	(B13) or (C1) s along Iron (C4 n in Tiller lants (D	xcept MLI Living Roo l) d Soils (C6 1) (LRR A	RA (C3)	Secon Wi Dr Sa Ge St FA	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave d 4B) datterns (E n Water T Visible on c Position duitard (D3 al Test (D Mounds (e e Hummo	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red) \ 1, 2
YDROLO Vetland Hyd Primary Indic Surface V High Water Ma Sedimen Drift Dep Algal Ma Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Seaturation Pr	e soil profile revea and A4. GY drology Indicator cators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) it Deposits (B2) osits (B3) it or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present?	s: f one require Surface	uired; chu	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	y) ned Leaves A, and 4B) (B11) rertebrates of Reduced in Reduction Stressed Plain in Rem	(B13) or (C1) s along Iron (C4 n in Tiller lants (D	xcept MLI Living Roo l) d Soils (C6 1) (LRR A	RA (C3)	Secon Wi Dr Sa Ge St FA	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave 1 4B) ratterns (E n Water T Visible on c Position uitard (D3 al Test (D Mounds	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red)
YDROLO Vetland Hyd Surface V High Wat Sedimen Drift Dep Algal Ma Iron Depc Inundatio Sparsely Field Observ Surface Water Table Baturation Princludes cap	e soil profile reveal and A4. GY drology Indicator extors (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concarvations: er Present? Present?	s: f one required Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; chu (B7) ee (B8) No 🖂 No 🖂	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or Other (Exp	ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere of Reduced n Reduction Stressed P lain in Rem (S): (a): (b): (a): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (a): (a): (b): (a): (a): (b): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (b): (a): (b): (a): (b): (b): (a): (b): (b): (a): (b): (b): (b): (b): (c): (c): (c): (c): (c): (c): (c): (c	(B13) or (C1) s along Iron (C4 n in Tiller lants (D arks)	Living Rootly d Soils (C6 1) (LRR A	RA ots (C3) 6)	Secon W: Dr Dr Sa Ge St Ra Fre	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave d 4B) datterns (E n Water T Visible on c Position duitard (D3 al Test (D Mounds (e e Hummo	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red)
YDROLO Vetland Hyd Surface V High Wat Sedimen Drift Dep Algal Ma Iron Depc Inundatio Sparsely Field Observ Surface Water Table Baturation Princludes cap	e soil profile revea and A4. GY drology Indicator cators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) it Deposits (B2) osits (B3) it or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present?	s: f one required Surface Yes Yes Yes Yes Yes Yes Yes Yes	uired; chu (B7) ee (B8) No 🖂 No 🖂	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or Other (Exp	ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere of Reduced n Reduction Stressed P lain in Rem (S): (a): (b): (a): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (a): (a): (b): (a): (a): (b): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (a): (b): (a): (b): (a): (b): (a): (b): (a): (b): (b): (a): (b): (b): (a): (b): (b): (b): (b): (c): (c): (c): (c): (c): (c): (c): (c	(B13) or (C1) s along Iron (C4 n in Tiller lants (D arks)	Living Rootly d Soils (C6 1) (LRR A	RA ots (C3) 6)	Secon W: Dr Dr Sa Ge St Ra Fre	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave d 4B) datterns (E n Water T Visible on c Position duitard (D3 al Test (D Mounds (e e Hummo	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red)
YDROLO Vetland Hyd Primary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Vater Table Saturation Princludes cap Describe Rec	e soil profile revea and A4. GY drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Conca vations: er Present? Present? present? present? orded Data (streat	s: f one required Surface Yes \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \)	uired; chu (B7) Re (B8) No No No No No No No No No No	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere: of Reduced n Reduction Stressed P lain in Rem (S): (S): 0 in hole (S): @ surface	(B13) or (C1) s along Iron (C4 n in Tiller lants (D arks)	Living Rootly d Soils (C6 1) (LRR A	RA ots (C3) 6)	Secon W: Dr Dr Sa Ge St Ra Fre	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave d 4B) datterns (E n Water T Visible on c Position duitard (D3 al Test (D Mounds (e e Hummo	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red) \ 1, 2
YDROLO Vetland Hyde Primary Indic Surface V High Water Ma Sedimen Drift Dep Algal Ma Iron Depe Surface S Inundation Sparsely Field Observe Surface Water Vater Table Saturation Princludes cap Describe Rec	e soil profile reveal and A4. GY drology Indicator extors (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria Vegetated Concarvations: er Present? Present?	s: f one required Surface Yes \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \(\text{Yes} \(\text{Yes} \(\text{Yes} \) \end{Yes} \)	uired; chu (B7) Re (B8) No No No No No No No No No No	eck all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen 3 Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves A, and 4B) (B11) rertebrates Sulfide Odo hizosphere: of Reduced n Reduction Stressed P lain in Rem (S): (S): 0 in hole (S): @ surface	(B13) or (C1) s along Iron (C4 n in Tiller lants (D arks)	Living Rootly d Soils (C6 1) (LRR A	RA ots (C3) 6)	Secon W: Dr Dr Sa Ge St Ra Fre	adary Indi ater-Stair 4A, and ainage P y-Seasor aturation veomorphi allow Aq aC-Neutra aised Ant ost-Heav	icators (2 ned Leave d 4B) datterns (E n Water T Visible on c Position duitard (D3 al Test (D Mounds (e e Hummo	or more requies (B9) (MLRA) B10) Table (C2) A Aerial Imager (D2) B) (D6) (LRR A) Docks (D7)	red)

Project/Site: Bond Road/SR 305		City/Coun	ty: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/201	0 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 7-	Α
Investigator(s): <u>J. Bartlett</u>						
Landform (hillslope, terrace, etc.): hillslope		_ Local reli	ief (concave	, convex, none): sloping	Slope (%)): <u>5%</u>
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-3						
Are climatic / hydrologic conditions on the site typical for th					-	
Are Vegetation, Soil, or Hydrology sig	-			ormal Circumstances" pres	ent? Yes⊠ No□	
Are Vegetation, Soil, or Hydrology nat				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map					•	s, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒						
Hydric Soil Present? Yes ☐ No ☒			he Sampled hin a Wetlar		. 🖂	
Wetland Hydrology Present? Yes ☐ No ☒		Witi	illi a vveuai	ild: Tes 🗌 No		
Remarks: Upland area on east edge of property right alor	ng Bond Roa	ıd.				
VEGETATION – Use scientific names of plan	nts.					
Tree Stratum (Plot size: 30' diameter)	Absolute		t Indicator Status	Dominance Test works		
Alnus rubra		Yes		Number of Dominant Spe That Are OBL, FACW, or		(A)
Pseudotsuga menziesii					·	(7.1)
3. Frangula purshiana	•	Yes		Total Number of Domina Species Across All Strata		(B)
4.				,	· <u> </u>	()
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total (Cover	Percent of Dominant Spe That Are OBL, FACW, or		(A/B)
1. Rubus spectabilis	15%	Yes	FAC	Prevalence Index work	sheet:	
2. Oemleria cerasiformis	15%	Yes	FACU	Total % Cover of:	Multiply by:	
3			· <u></u>	OBL species		
4				FACW species		
5				FAC species		
Herb Stratum (Plot size: 30 feet)	30%	= Total (Cover	FACU species		
1. Rubus ursinus	25%	Yes	FACU	UPL species		
Polystichum munitum		Yes		Column Totals:	(A)	(D)
3.				Prevalence Index :	= B/A =	
4.				Hydrophytic Vegetation	n Indicators:	
5				☐ Dominance Test is >	50%	
6				☐ Prevalence Index is		
7		<u> </u>		Morphological Adapt	ations ¹ (Provide suppor or on a separate sheet)	
8				☐ Wetland Non-Vascul		,
9				☐ Problematic Hydroph		iin)
10			·	¹ Indicators of hydric soil	, , , ,	,
11				be present, unless distur		
Woody Vine Stratum (Plot size:)	45%	= Total (Cover			
1				Hydrophytic		
2.				Vegetation	_	
		= Total (Present? Yes	□ No ⊠	
% Bare Ground in Herb Stratum <u>55</u>	·	-				
Remarks: The hydrophytic vegetation criterion is not met	because the	re is less t	han 50% do	minance by FAC.		

Depth	cription: (Descrit Matrix		lepth n	eeded to document the indicator or on the Redox Features	confirm	the absence of indicators.)
(inches)	Color (moist)	%	Col	or (moist) % Type ¹ L	.oc²	Texture Remarks
0-3"	10YR 2/2	100%	_		<u>I</u>	oam
3-16"	7.5YR 4/4	100%			5	sandy loam
	<u></u>					
			_			
	<u></u>					
¹Type: C=C	concentration, D=D	epletion, F	RM=Re	duced Matrix, CS=Covered or Coated S	Sand Gra	ins. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to	all LRF	Rs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox (S5)		☐ 2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
	istic (A3)			Loamy Mucky Mineral (F1) (except ML	RA 1)	☐ Other (Explain in Remarks)
	en Sulfide (A4)	(* ()		Loamy Gleyed Matrix (F2)		
•	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)		31. disease of hadronkadis as estation and
	ark Surface (A12) ⁄lucky Mineral (S1)			Redox Dark Surface (F6) Depleted Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
	Bleyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
	Layer (if present)	:		reack Depressions (i.e.)		diffeed distalled of problematic.
	, , ,					
,, <u> </u>	nches):		·			Hydric Soil Present? Yes ☐ No ☒
	, <u> </u>			cause of the high chroma of the soil prof	filo	,
rtomanto. Ti	no riyano con critor	1011 10 1101 1	1101 000	adde of the riight officing of the con pro-		
HYDROLO	GY					
	drology Indicator					
	cators (minimum c	of one requ	ired; ch	** **		Secondary Indicators (2 or more required)
	Water (A1)			☐ Water-Stained Leaves (B9) (exce	pt MLRA	
_	ater Table (A2)			1, 2, 4A, and 4B)		4A, and 4B)
Saturation	` '			Salt Crust (B11)		Drainage Patterns (B10)
	larks (B1)			Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen Sulfide Odor (C1)		☐ Saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized Rhizospheres along Livin	ng Roots	
_	at or Crust (B4)			Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	posits (B5)			Recent Iron Reduction in Tilled Sc		FAC-Neutral Test (D5)
	Soil Cracks (B6)		·= -\	Stunted or Stressed Plants (D1) (I	LRR A)	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeria			☐ Other (Explain in Remarks)		☐ Frost-Heave Hummocks (D7)
	y Vegetated Conca	ive Surface	e (B8)		1	
Field Obser		v		5 4 6 1)		
	ter Present?		No 🖂	Depth (inches):		
Water Table			No 🖂	Depth (inches):		
Saturation F (includes ca	resent? pillary fringe)	Yes 🗌	No ⊠	Depth (inches):	Wetlai	nd Hydrology Present? Yes ☐ No ⊠
		am gauge,	monito	ring well, aerial photos, previous inspec	ctions), if	available:
Remarks: N	o hydrology preser	nt and no v	vetland	hydrology indicators		

Project/Site: Bond Road/SR 305		City/County	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010 6-2016	
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 8-A	
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	I, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave	, convex, none): sloping	Slope (%): <u>5%</u>	
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:	
Soil Map Unit Name: 40 Poulsbo gravelly sandy loam, 6-15	% slopes			NWI classifica	tion: <u>UPL</u>	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes ⊠	No ☐ (I	f no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology sign	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ⊠ No □	
Are Vegetation, Soil, or Hydrology natu	ırally probler	natic?	(If need	ed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes ☐ No ☒		lo th	o Compled	Aron		
Hydric Soil Present? Yes ☐ No ☒			ie Sampled in a Wetlar		o ⊠	
Wetland Hydrology Present? Yes ☐ No ☒				_	_	
Remarks: Upland area in southwestern portion of the site. used for this report because there have been no changes 11/10 to reflag the test hole location. VEGETATION – Use scientific names of plan	to site condi					
-	Absolute		Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: <u>30' diameter</u>)	% Cover			Number of Dominant Sp		
1. Thuja plicata	35%	Yes		That Are OBL, FACW, o	or FAC: 1 (A)	
2. Pseudotsuga menziesii	<u>15%</u>			Total Number of Domina	-	
Acer macrophyllum Prunus emarginata	<u>5%</u> 5%			Species Across All Strat	a: <u>4</u> (B)	
4. I Tunus emarginata		= Total C		Percent of Dominant Sp That Are OBL, FACW, o		
Sapling/Shrub Stratum (Plot size: 30' diameter)				That Are OBL, PACVV, 0	or FAC: <u>25</u> (A/B)	
Vaccinium ovataum				Prevalence Index work		
2					Multiply by:	
3					x 1 =	
4					x 2 =	
5					x 3 = x 4 =	
Herb Stratum (Plot size: 30 feet)	5%	= Total C	over	UPL species		
1. Polystichum munitum	10%	Yes	FACU			
2					(-)	
3					= B/A =	
4				Hydrophytic Vegetatio		
5				Dominance Test is >		
6				☐ Prevalence Index is		
7				☐ Morphological Adapt data in Remarks	tations ¹ (Provide supporting or on a separate sheet)	
8				☐ Wetland Non-Vascu		
9				☐ Problematic Hydropl	hytic Vegetation ¹ (Explain)	
10 11					and wetland hydrology must	
		= Total C		be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size:)						
1			-	Hydrophytic		
2				Vegetation Present? Yes	s □ No ⊠	
% Bare Ground in Herb Stratum 90%		= Total C	over			
Remarks: The hydrophytic vegetataion criterion is not met	because the	ere is less	than 50% d	ominance by FAC species		

Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type¹ Loc² Texture Remark	
0.46" 40VD 5/2 4000/	rks
<u>0-16" 10YR 5/3 100% gr sa loa</u>	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Linit	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic I	: Hydric Soils³:
☐ Histosol (A1) ☐ Sandy Redox (S5) ☐ 2 cm Muck (A10)	
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6) ☐ Red Parent Material (TF2	•
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) (except MLRA 1) ☐ Other (Explain in Remark	rks)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6) ³ Indicators of hydrophytic veg	
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be	•
☐ Sandy Gleyed Matrix (S4) ☐ Redox Depressions (F8) unless disturbed or proble	ematic.
Restrictive Layer (if present):	
Type:	_
Depth (inches): Hydric Soil Present? Yes] No ⊠
Remarks: High soil matrix chroma does not have characteristics for any of the hydric soil indicators.	
HYDROLOGY	
HYDROLOGY Wetland Hydrology Indicators:	
Wetland Hydrology Indicators:	or more required)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or December 1) □ Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or Secondary Indicators	s (B9) (MLRA 1, 2,
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Project/Site: Bond Road/SR 305		City/Cou	nty: Poulsbo,	Kitsap	Sampling Date: 11/2010 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 9-A
Investigator(s): <u>J. Bartlett</u>			_ Section, To	wnship, Range: <u>S 10 & 1</u>	1, T 26 N, R 1E.
Landform (hillslope, terrace, etc.): hillslope		Local re	elief (concave,	convex, none): sloping	Slope (%): <u>5%</u>
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:
Soil Map Unit Name: 40 Poulsbo gravelly sandy loam, 6-15%					
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	⊠ No □ (li	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pre	
Are Vegetation, Soil, or Hydrology natu			(If neede	ed, explain any answers i	n Remarks.)
SUMMARY OF FINDINGS – Attach site map s					
Hydrophytic Vegetation Present? Yes ⊠ No □					
Hydric Soil Present? Yes ☐ No ☒			the Sampled		. 57
Wetland Hydrology Present? Yes ☐ No ☒		W	ithin a Wetlar	nd? Yes □ N	10 🕅
Remarks: Upland area in southwestern portion of the site. used for this report because there have been no change to 11/10 to reflag the test hole location. NW of Test Hole 8-A. VEGETATION – Use scientific names of plant	site conditi				
VEGETATION 03c 3cicitatic names of plant	Absolute	Domina	int Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: 30' diameter)			s? Status	Number of Dominant Sp	
1. Thuja plicata	15%	Yes	FAC		or FAC: 1 (A)
2. Pseudotsuga menziesii			FACU	Total Number of Domin	ant
3				Species Across All Stra	ta: <u>4</u> (B)
4				Percent of Dominant Sp	pecies
Sapling/Shrub Stratum (Plot size: 30' diameter)	20%	= Total	Cover	That Are OBL, FACW, o	or FAC: <u>25</u> (A/B)
1. Vaccinium ovataum	5%	Yes	FACU	Prevalence Index wor	ksheet:
2. Gaultheria shallon	<u>5%</u>	Yes	<u>FACU</u>	Total % Cover of:	Multiply by:
3				OBL species	x 1 =
4					x 2 =
5					x 3 =
Herb Stratum (Plot size: 30 feet)	10%	= Total	Cover		x 4 =
1					x 5 =
2.				Column Lotals:	(A) (B)
3				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	on Indicators:
5				☐ Dominance Test is	>50%
6				☐ Prevalence Index is	3.0 ¹
7 8				☐ Morphological Adap data in Remarks	otations ¹ (Provide supporting s or on a separate sheet)
9.				☐ Wetland Non-Vascu	ular Plants ¹
10				☐ Problematic Hydrop	phytic Vegetation ¹ (Explain)
11.				¹ Indicators of hydric soi be present, unless distu	I and wetland hydrology must urbed or problematic.
Woody Vine Stratum (Plot size:)		= Total	Cover		
1				Hydrophytic	
2				Vegetation	
				Present? Yes	s □ No ⊠
% Bare Ground in Herb Stratum 100%					
Remarks: The hydrophytic vegetation criterion is not met b	ecause ther	e is less	tnan 50% dor	minance by FAC.	

Depth (inches)	Matrix Color (moist)	%	Colo	Redox Features or (moist) % Type ¹ Lo	c ² Texti	ure	Remarks
0-16"	10YR 4/3	100%		// ///	grsa		
<u>J-10</u>	101K 4/3	100%			<u>yı sa</u>	10a	
	-	_					-
		_	_				
							_
	_						_
			_				
Type: C=C	oncentration. D=De	pletion. F	RM=Red	luced Matrix, CS=Covered or Coated Sa	and Grains.	² Loc	cation: PL=Pore Lining, M=Matrix.
				s, unless otherwise noted.)			rs for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (S5)	[2 cm	Muck (A10)
	ipedon (A2)			Stripped Matrix (S6)			Parent Material (TF2)
☐ Black His	stic (A3)		□ I	Loamy Mucky Mineral (F1) (except MLI	RA 1) [Othe	r (Explain in Remarks)
☐ Hydroge	n Sulfide (A4)		□ I	Loamy Gleyed Matrix (F2)			
	Below Dark Surfac	ce (A11)		Depleted Matrix (F3)			
	rk Surface (A12)			Redox Dark Surface (F6)	3		ors of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark Surface (F7)			nd hydrology must be present,
•	leyed Matrix (S4)			Redox Depressions (F8)		unles	s disturbed or problematic.
	Layer (if present):						
Type:							
	chac).				Hvd		Present? Yes ☐ No ☒
Depth (in						ric Soii	Tresent: Tes No
				ause of the high chroma of the soil profi		ILIC 2011	Tresont. Tes Ne
				ause of the high chroma of the soil profi		ric Soii	resent. Tes ne Z
Remarks: Th	ne hydric soil criterio	on is not r		ause of the high chroma of the soil profi		ric Soil	resent. Tes ne Z
Remarks: Th	ne hydric soil criterio	on is not r		ause of the high chroma of the soil profi		ric Soil	resent. Tes ne Z
Remarks: The state of the state	ne hydric soil criterio	on is not r	met beca	eck all that apply)	le.		ndary Indicators (2 or more required)
Remarks: The state of the state	GY drology Indicators cators (minimum of	on is not r	met beca		le.	Secon	
Remarks: The state of the state	GY drology Indicators cators (minimum of	on is not r	met beca	eck all that apply)	le.	Secon	ndary Indicators (2 or more required)
YDROLO Wetland Hyd Primary India Surface V High Wa Saturatio	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11)	le.	Secor W	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Remarks: The second of the sec	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B)	le.	Secor W	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
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IYDROLO Wetland Hydeliand	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	ot MLRA	Secon W Dr Dr Sa Ge	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
IYDROLO Wetland Hydelicolor Surface Verimary India	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin	ot MLRA	Secon W	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2)
IYDROLO Wetland Hy Primary India Surface High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4)	g Roots (C3)	Secor W	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3)
IYDROLO Wetland Hy Primary Indic Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5)	on is not r	met beca	eck all that apply) Water-Stained Leaves (B9) (exception 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi	g Roots (C3)	Secon W. Dr Dr Dr Sa GG St St Ra	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5)
Remarks: The IYDROLO Wetland Hyde Primary India Surface Water March Marc	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6)	on is not r	ired; che	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (L	g Roots (C3)	Secon W. Dr Dr Dr Sa GG St St Ra	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks: The Sediment Drift Dep Loron Dep Surface Surf	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	on is not r	ired; che	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (L	g Roots (C3)	Secon W. Dr Dr Dr Sa GG St St Ra	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks: The Sediment Drift Dep Surface Surfac	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations:	on is not r	ired; che	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soit Stunted or Stressed Plants (D1) (L	g Roots (C3)	Secon W. Dr Dr Dr Sa GG St St Ra	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks: The Sediment of Surface	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present?	on is not r	ired; che (B7) e (B8)	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L	g Roots (C3)	Secon W. Dr Dr Dr Sa GG St St Ra	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks: The IYDROLO Wetland Hyde Primary India Surface Water Maren Mare	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concav vations: er Present?	Imagery Yes Yes	ired; che (B7) e (B8) No 🏻	eck all that apply) Water-Stained Leaves (B9) (except, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3)	Secon W Dr Dr Sa Ge St FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Remarks: Tr	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent?	Imagery Yes Yes Yes Yes Yes Yes Yes Yes	ired; che (B7) e (B8) No 🖂 No 🖂	eck all that apply) Water-Stained Leaves (B9) (except, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	ndary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Remarks: The Sediment of Surface	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent?	Imagery Yes Yes Yes Yes Yes Yes Yes Yes	ired; che (B7) e (B8) No 🖂 No 🖂	eck all that apply) Water-Stained Leaves (B9) (except, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Remarks: Tr	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent?	Imagery Yes Yes Yes Yes Yes Yes Yes Yes	ired; che (B7) e (B8) No 🖂 No 🖂	eck all that apply) Water-Stained Leaves (B9) (except, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Remarks: The Sediment Surface Water Malgal M	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? poillary fringe) corded Data (strear	Imagery re Surface Yes Yes Yes Yes Yes The gauge,	ired; che (B7) e (B8) No 🏻 No 🖎 no notor	eck all that apply) Water-Stained Leaves (B9) (except, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Remarks: The Primary Indices of the Indi	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? poillary fringe) corded Data (strear	Imagery re Surface Yes Yes Yes Yes Yes The gauge,	ired; che (B7) e (B8) No 🏻 No 🖎 no notor	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Remarks: The Sediment of Surface	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? poillary fringe) corded Data (strear	Imagery re Surface Yes Yes Yes Yes Yes The gauge,	ired; che (B7) e (B8) No 🏻 No 🖎 no notor	eck all that apply) Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soi Stunted or Stressed Plants (D1) (L Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Depth (inches):	g Roots (C3) ils (C6) RR A) Wetland Hy	Secor W Dr Dr Sa GG St Ra FA	adary Indicators (2 or more required) ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

Project/Site: Bond Road/SR 305	(City/County	: Poulsbo,	Kitsap	Sampling Date: 11/2010 6-2016		
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 10-A		
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.		
Landform (hillslope, terrace, etc.): hillslope		Local relie	f (concave,	, convex, none): sloping	Slope (%): <u>5%</u>		
Subregion (LRR): <u>NW Forests and Coast</u>	_ Lat:			Long:	Datum:		
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30							
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes⊠ No □		
Are Vegetation, Soil, or Hydrology natu	-			ed, explain any answers in			
SUMMARY OF FINDINGS – Attach site map s							
	<u> </u>		J 1				
Hydrophytic Vegetation Present? Yes ☐ No ☐ Hydric Soil Present? Yes ☐ No ☐ N		Is th	e Sampled	l Area			
Hydric Soil Present? Yes ☐ No ☐ Wetland Hydrology Present? Yes ☐ No ☐		with	in a Wetlar	nd? Yes ☐ No) 		
Remarks: Upper end of dry trough in which Test Holes 4A	and 5A were	e also esta	blished.				
, ,							
VEGETATION – Use scientific names of plant	s.						
To a Otraction (Plate in a COL discussion)		Dominant		Dominance Test works	heet:		
Tree Stratum (Plot size: 30' diameter)	<u>% Cover</u> 15%			Number of Dominant Spe That Are OBL, FACW, or			
Alnus rubra Thuja plicata				That Are OBL, FACW, or	1AC. <u>2</u> (A)		
3				Total Number of Domina Species Across All Strata			
4.							
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C		Percent of Dominant Spe That Are OBL, FACW, or			
1. Vaccinium ovatum	5%	Yes	FACU	Prevalence Index works	sheet:		
2				Total % Cover of:	Multiply by:		
3					x 1 =		
4					x 2 =		
5					x 3 =		
Herb Stratum (Plot size: 30 feet)	<u>5%</u>	= Total C	over		x 4 = <u>220</u>		
·	50%	Yes	FACU	Column Totals:	x 5 = (A) (B)		
2.				Column rotals.	(A) (D)		
3				Prevalence Index :	= B/A =		
4				Hydrophytic Vegetation			
5				Dominance Test is >			
6				☐ Prevalence Index is			
7					ations ¹ (Provide supporting or on a separate sheet)		
8				☐ Wetland Non-Vascul			
9				☐ Problematic Hydroph	nytic Vegetation ¹ (Explain)		
10					and wetland hydrology must		
11		= Total C		be present, unless distur	bed or problematic.		
Woody Vine Stratum (Plot size:)	30 70	= 10tai 0	OVCI				
1				Hydrophytic			
2				Vegetation Present? Yes	□ No ⊠		
9/ Para Ground in Horb Stratum 50		= Total C	over		_ · <u>_</u>		
% Bare Ground in Herb Stratum <u>50</u> Remarks: The hydrophytic vegetation criterion is not met b	ecause ther	e is no are:	ater than 50	 0% dominance by FAC spe	ecies.		
, , , , , , , , , , , , , , , , , , , ,		- 3.0		,			

	cription: (Descri	oe to the d	epth n				or confirm	n the absence of indicators.)
Depth (inches)	Matrix Color (moist)	<u>.</u> %	Cole	Redo or (moist)	x Features %		Loc ²	Texture Remarks
	. , ,			<u>, , , , , , , , , , , , , , , , , , , </u>			LOC	
0-9"	10YR 2/2	100%						loam
9-16"	10YR 4/3	<u>100%</u>			_			gr sa loam
	-				11			
						· ——		
							-	- <u> </u>
	_							
	oncentration, D=D						ed Sand G	
-	Indicators: (App	licable to				ed.)		Indicators for Problematic Hydric Soils ³ :
Histosol	` '			Sandy Redox (S				2 cm Muck (A10)
☐ Histic Ep				Stripped Matrix	` '	\	• MI DA 4\	Red Parent Material (TF2)
☐ Black His	n Sulfide (A4)			Loamy Mucky N Loamy Gleyed I			(WILKA I)	☐ Other (Explain in Remarks)
_ , ,	d Below Dark Surf	ace (A11)		Depleted Matrix				
	ark Surface (A12)	200 (7111)		Redox Dark Su	. ,			³ Indicators of hydrophytic vegetation and
_	lucky Mineral (S1)			Depleted Dark	, ,	7)		wetland hydrology must be present,
☐ Sandy G	leyed Matrix (S4)			Redox Depress	ions (F8)			unless disturbed or problematic.
Restrictive	Layer (if present)):						
Type:			_					
Depth (in	ches):		_					Hydric Soil Present? Yes ☐ No ☒
Remarks: Th	ne hydric soil criter	ion is not n	net bec	ause of the high	n chroma c	of the soil	profile.	
HYDROLO	CV							
	drology Indicator							
_	cators (minimum o		rad: ab	ook all that ann	h./\			Secondary Indicators (2 or more required)
		one requi	rea, cn			- (DO) (-		
☐ Surface	ter Table (A2)			☐ Water-Stai			except ML	RA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Saturation	(/			I, Z, 4/	A, and 4B)	,		☐ Drainage Patterns (B10)
☐ Water M	` '			☐ Aquatic Inv	` '	(R13)		☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydrogen		` '		☐ Saturation Visible on Aerial Imagery (C9)
	oosits (B3)			☐ Oxidized F			Living Roc	
-	it or Crust (B4)			☐ Presence	•	_	•	☐ Shallow Aquitard (D3)
	osits (B5)			☐ Recent Iro		`	,	
-	Soil Cracks (B6)			☐ Stunted or				• • •
	on Visible on Aeria	al Imagery (B7)	☐ Other (Exp			., (=:::::	Frost-Heave Hummocks (D7)
	Vegetated Conca		. ,			,		
Field Obser								
Surface Wat	er Present?	Yes 🗌	No 🛛	Depth (inches	s):			
Water Table	Present?		No 🖂	Depth (inches	s):			
Saturation P			No 🖾	Depth (inches			Wet	land Hydrology Present? Yes ☐ No ⊠
(includes cap	oillary fringe)							
Describe Re	corded Data (stre	am gauge,	monito	ring well, aerial	photos, pr	evious in	spections),	if available:
Remarks: No	o hydrology prese	nt and no w	etland	hydrology indic	ators were	observe	d during th	e field visits.

Project/Site: Bond Road/SR 305		City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010 6-2016		
Applicant/Owner: Edward Rose and Sons				State: WA Sampling Point: TH 11			
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.		
Landform (hillslope, terrace, etc.): Terrace		Local relie	ef (concave	, convex, none): sloping	Slope (%): <u>5%</u>		
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:		
Soil Map Unit Name: 40 Poulsbo gravelly sandy loam, 6-15	5% slopes			NWI classifica	tion: <u>UPL</u>		
Are climatic / hydrologic conditions on the site typical for th	is time of yea	ar? Yes ⊠	l No □ (I	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology sig	nificantly dis	turbed?	Are "No	ormal Circumstances" pres	ent? Yes 🛛 No 🗌		
Are Vegetation, Soil, or Hydrology nat	urally probler	matic?	(If need	ed, explain any answers ir	Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects,	important features, etc.		
Hydrophytic Vegetation Present? Yes ☐ No ☒		lo th	ne Sampled	I Aron			
Hydric Soil Present? Yes ☐ No ⊠			ie Sampled in a Wetlai		o ⊠		
Wetland Hydrology Present? Yes ☐ No ☒					_		
Remarks: Upland area in central eastern portion of the primaple, red alder, western red cedar, cascara, Scouler's whave been no changes to site conditions. VEGETATION – Use scientific names of plan	villow and wil						
	Absolute	Dominant	Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 30' diameter)	% Cover			Number of Dominant Sp			
1. Alnus rubra		Yes		That Are OBL, FACW, o	r FAC: <u>2</u> (A)		
2. Thuja plicata				Total Number of Domina			
Frangula purshiana A. Acer macrophyllum		No No		Species Across All Strat	a: <u>5</u> (B)		
4. <u>/ Idor Indolophyllain</u>		= Total C		Percent of Dominant Sp That Are OBL, FACW, o			
Sapling/Shrub Stratum (Plot size: 30' diameter)							
Oemleria cerasiformis		Yes		Prevalence Index work			
2. Sambucus racemosa					Multiply by:		
3					x 1 = x 2 =		
4					x 3 =		
5		= Total C			x 4 =		
Herb Stratum (Plot size: 30 feet)	1070	- Total C	ovei	UPL species			
1. Polystichum munitum	50%	Yes	<u>FACU</u>		(A) (B)		
2. Rubus ursinus	10%	No	FACU				
3					= B/A =		
4				Hydrophytic Vegetatio			
5				Dominance Test is >			
6				☐ Prevalence Index is	3.0 tations ¹ (Provide supporting		
7					or on a separate sheet)		
8				☐ Wetland Non-Vascu	lar Plants ¹		
9				☐ Problematic Hydropl	nytic Vegetation ¹ (Explain)		
10 11				¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must		
Woody Vine Stratum (Plot size:)	60%	= Total C	Cover	be present, unless dista	isca of problematic.		
1				Hydrophytic			
2.				Vegetation	. □ Na ⊠		
		= Total C	over	Present? Yes	s □ No ⊠		
% Bare Ground in Herb Stratum <u>40</u>	h		5 00′′′				
Remarks: The hydrophytic vegetation criterion is not met	because the	ie is iess tr	ıап 50% d0	піпапсе ву FAC.			

Depth	Matrix	%	Cala	Redox r (moist)		e ¹ Loc ²	Tout	re Remarks	
(inches)	Color (moist)			r (moist)	<u>%</u> <u>Typ</u>	e Loc			
<u>0-16"</u>	10YR 4/4	100%					gr sa lo	<u> </u>	
		-					-		
									
1								2	
	oncentration, D=D					oated Sand G		² Location: PL=Pore Lining, M=Mat	
-	Indicators: (Appl	icable to a						ndicators for Problematic Hydric So	ls":
Histosol	, ,			Sandy Redox (S5				2 cm Muck (A10)	
	oipedon (A2)			Stripped Matrix (S		ant MI DA 4)		Red Parent Material (TF2)	
☐ Black Hi	, ,			oamy Mucky Mir	. , ,	ept WLRA 1)		Other (Explain in Remarks)	
	n Sulfide (A4) d Below Dark Surfa	co (A11)		Loamy Gleyed Ma Depleted Matrix (F					
	ark Surface (A12)	CC (ATT)		Redox Dark Surfa	,		³ lı	ndicators of hydrophytic vegetation an	d
	fucky Mineral (S1)			Depleted Dark Su	, ,			wetland hydrology must be present,	u .
•	Gleyed Matrix (S4)			Redox Depression				unless disturbed or problematic.	
	Layer (if present):				- (-)			1 11 11 11 11 11 11 11 11 11 11 11 11 1	
	ches):		_				Hydri	ic Soil Present? Yes ☐ No ⊠	
	ne hydric soil criteri		_		h	:	,	10 Com 1 1000mm 100	
itemarks. II	ie riyuric son cirteri	011 13 1101 11	iet bece	ause of the flight o	illoilla oi tile	son prome.			
HYDROLO	GY								
	drology Indicator	e•							
•	•		rad: aba	ook all that apply)				Sacandary Indicators (2 or more requ	iirad)
	cators (minimum of	one requi	rea, che					Secondary Indicators (2 or more requ	
Surface				☐ Water-Staine) (except ML	RA	Water-Stained Leaves (B9) (MLR	A 1, 2,
_	iter Table (A2)			1, 2, 4A,	-			4A, and 4B)	
☐ Saturation	, ,			Salt Crust (B	,			Drainage Patterns (B10)	
☐ Water M				☐ Aquatic Inve				☐ Dry-Season Water Table (C2)	
☐ Sedimer	nt Deposits (B2)			☐ Hydrogen Su	Ifide Odor (C	1)		☐ Saturation Visible on Aerial Image	ery (C9)
☐ Drift Dep	oosits (B3)			☐ Oxidized Rhi	zospheres ald	ong Living Roo	ots (C3)	☐ Geomorphic Position (D2)	
A 1 1 B 4				☐ Presence of	Reduced Iron	(0.1)			
	at or Crust (B4)					(C4)		☐ Shallow Aquitard (D3)	
_	at or Crust (B4) posits (B5)			☐ Recent Iron I			6)	☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5)	
☐ Iron Dep					Reduction in 1		•)
☐ Iron Dep☐ Surface	oosits (B5)	Imagery (B7)		Reduction in Tressed Plants	Tilled Soils (Co (D1) (LRR A	•	☐ FAC-Neutral Test (D5))
☐ Iron Dep☐ Surface☐ Inundation	oosits (B5) Soil Cracks (B6)	0 , \	,	☐ Stunted or St	Reduction in Tressed Plants	Tilled Soils (Co (D1) (LRR A	•	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
☐ Iron Dep☐ Surface☐ Inundation	oosits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Conca	0 , \	,	☐ Stunted or St	Reduction in Tressed Plants	Tilled Soils (Co (D1) (LRR A	•	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely	oosits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Conca	ve Surface	,	☐ Stunted or Si☐ Other (Expla	Reduction in Taressed Plants In in Remarks	Filled Soils (C6 s (D1) (LRR A	•	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat	sosits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present?	ve Surface	(B8) No ⊠	Stunted or Single Other (Explain Depth (inches):	Reduction in 1 cressed Plants in in Remarks	rilled Soils (C6 s (D1) (LRR A)	•	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
☐ Iron Dep☐ Surface☐ Inundatic☐ Sparsely Field Obser Surface Wat Water Table	sosits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present?	ve Surface Yes Yes Yes	No 🖂	☐ Stunted or Si☐ Other (Expla Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks	illed Soils (Cos (D1) (LRR A)	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A ☐ Frost-Heave Hummocks (D7))
☐ Iron Dep☐ Surface☐ Inundatic☐ Sparsely Field Obser Surface Wat Water Table Saturation P	sosits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present? Present?	ve Surface Yes Yes Yes	(B8) No ⊠	Stunted or Single Other (Explain Depth (inches):	Reduction in 1 cressed Plants in in Remarks	illed Soils (Cos (D1) (LRR A)	FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	sosits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present?	ve Surface Yes Yes Yes Yes Yes	No 🖂 No 🖾	Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks	illed Soils (C6 (D1) (LRR A	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	sosits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Concar vations: ter Present? Present? pillary fringe)	ve Surface Yes Yes Yes Yes Yes	No 🖂 No 🖾	Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks	illed Soils (C6 (D1) (LRR A	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	sosits (B5) Soil Cracks (B6) on Visible on Aeria v Vegetated Concar vations: ter Present? Present? pillary fringe)	yes ☐ Yes ☐ Yes ☐ Yes ☐	No 🖂 No 🖾 No 🖾 no 🖾 monitor	Depth (inches): Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks otos, previous	illed Soils (C6 s (D1) (LRR A s)) Wet	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present? Present? Present? pillary fringe) corded Data (strea	yes ☐ Yes ☐ Yes ☐ Yes ☐	No 🖂 No 🖾 No 🖾 no 🖾 monitor	Depth (inches): Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks otos, previous	illed Soils (C6 s (D1) (LRR A s)) Wet	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present? Present? Present? pillary fringe) corded Data (strea	yes ☐ Yes ☐ Yes ☐ Yes ☐	No 🖂 No 🖾 No 🖾 no 🖾 monitor	Depth (inches): Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks otos, previous	illed Soils (C6 s (D1) (LRR A s)) Wet	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒)
☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca Describe Re	posits (B5) Soil Cracks (B6) on Visible on Aeria vegetated Concar vations: ter Present? Present? Present? pillary fringe) corded Data (strea	yes ☐ Yes ☐ Yes ☐ Yes ☐	No 🖂 No 🖾 No 🖾 no 🖾 monitor	Depth (inches): Depth (inches): Depth (inches):	Reduction in 1 cressed Plants in in Remarks otos, previous	illed Soils (C6 s (D1) (LRR A s)) Wet	land Hyd	☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A☐ Frost-Heave Hummocks (D7) drology Present? Yes ☐ No ☒	

Project/Site: Bond Road/SR 305		City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010 6	<u>3-2016</u>
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 12-A	ı
Investigator(s): <u>J. Bartlett</u>						
Landform (hillslope, terrace, etc.): Terrace		_ Local reli	ef (concave	, convex, none): sloping	Slope (%): <u>5</u>	5%
Subregion (LRR): MLRA 2						
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%						
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrology sig	•			ormal Circumstances" pres	ent? Yes⊠ No □	
Are Vegetation, Soil, or Hydrology nati				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map					•	, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒						
Hydric Soil Present? Yes ☐ No ☒			ne Sampled		- 🖂	
Wetland Hydrology Present? Yes ☐ No ☒		With	nin a Wetlar	nd? Yes ☐ No) 🛚	
Remarks: Upland area along east property line just upslop was reflagged as Test Hole 12-A (it was labeled 11-A during the second of the second	ing the 2006			le was located during the N	ovember 2010 field visit a	ınd it
Tree Stratum (Plot size: 30' diameter)	Absolute % Cover		Indicator Status	Dominance Test works		
1. Thuja plicata		Yes		Number of Dominant Spo That Are OBL, FACW, or		(A)
2. Alnus rubra	10%	Yes	FAC	Total Number of Domina	unt .	
3. Frangula purshiana	5%	No	FAC	Species Across All Strata		3)
4				Percent of Dominant Spe	eries	
Sapling/Shrub Stratum (Plot size: 30' diameter)	50%	= Total C	Cover		r FAC: <u>40</u> (A	4/B)
Vaccinium parvifolium	10%	Yes	<u>FACU</u>	Prevalence Index work		
Rhododendron macrophyllum		Yes			Multiply by:	
3. Mahonia nervosa		<u>No</u>			x 1 =	
4. <u>Sambucus racemosa</u>		No	<u>FACU</u>		x 2 =	
5					x 3 =	
Herb Stratum (Plot size: 30 feet)	30%	= Total C	Cover		x 4 =	
1. Polystichum munitum	30%	Yes	FACU		x 5 = (A)	
2.				Column Totals.	(A)	(D)
3				Prevalence Index	= B/A =	
4				Hydrophytic Vegetation	n Indicators:	
5				☐ Dominance Test is >	50%	
6				☐ Prevalence Index is		
7					ations ¹ (Provide supporting or on a separate sheet)	ıg
8		· ——		☐ Wetland Non-Vascul		
9					nytic Vegetation ¹ (Explain)	i
10		·		_ , ,	and wetland hydrology mu	
11				be present, unless distur		
Woody Vine Stratum (Plot size:)	30%	= Total C	Cover			
1				Hydrophytic Vegetation		
2				•	□ No ⊠	
% Bare Ground in Herb Stratum 70		= Total C	over			
Remarks: The hydrophytic vegetation criterion is not met	because the	re is less th	nan 50% do	minance by FAC.		

Depth	Matrix			Reded to document the ind			i ilic ub	301100	or maloators.)
(inches)	Color (moist)	%	Colo	<u>r (moist) % 1</u>	ype ¹	Loc ²	Textur	<u>e</u> .	Remarks
0-6"	duff	100%					gr sa lo	oa	
6-16"	7.5YR 4/4	100%					gr sa lo)	
			-				-		
	_						-		
1Type: C-C	oncentration D-De	enletion P	M-Rad	uced Matrix, CS=Covered o	r Coated	Sand Gr	aine	21 0	cation: PL=Pore Lining, M=Matrix.
				s, unless otherwise noted		Sand Gi			ors for Problematic Hydric Soils ³ :
Histosol				Sandy Redox (S5)	,				n Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)				_	Parent Material (TF2)
☐ Black His				oamy Mucky Mineral (F1) (except N	ILRA 1)			er (Explain in Remarks)
	n Sulfide (A4)		□ L	oamy Gleyed Matrix (F2)					
	d Below Dark Surfa	ce (A11)		Depleted Matrix (F3)					
	ark Surface (A12)			Redox Dark Surface (F6)			3lr		ors of hydrophytic vegetation and
-	lucky Mineral (S1)			Depleted Dark Surface (F7)					and hydrology must be present,
	leyed Matrix (S4) Layer (if present):		_ □ '	Redox Depressions (F8)				unies	ss disturbed or problematic.
	- I: X:		_				I Is calmi		I Duna and All Van III No III
. `	ches):					***	пуагі	ic Soii	l Present? Yes ☐ No ⊠
Remarks: Tr	ne hydric soil criteri	on is not m	net beca	ause of the high chroma of t	ne soil pr	ofile.			
HYDROLO	GY								
•	drology Indicator								
	cators (minimum of	one requi	red; che						ndary Indicators (2 or more required)
Surface \				☐ Water-Stained Leaves	(B9) (exc	ept MLR	RA	□ W	/ater-Stained Leaves (B9) (MLRA 1, 2,
_	ter Table (A2)			1, 2, 4A, and 4B)				_	4A, and 4B)
☐ Saturation	` '			Salt Crust (B11)				_	rainage Patterns (B10)
☐ Water M				Aquatic Invertebrates (I					ry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen Sulfide Odor					aturation Visible on Aerial Imagery (C9)
	oosits (B3)			Oxidized Rhizospheres	-	ving Roo	ts (C3)		seomorphic Position (D2)
_	it or Crust (B4)			☐ Presence of Reduced I					hallow Aquitard (D3)
	osits (B5)			Recent Iron Reduction		,	•		AC-Neutral Test (D5)
	Soil Cracks (B6)		D-7\	Stunted or Stressed Pla		(LRR A)			aised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	0 , (,	Other (Explain in Rema	irks)			⊔ F	rost-Heave Hummocks (D7)
	Vegetated Conca	ve Surrace	(B8)						
Field Obser		V □	Na M	Donth (inches)					
Surface Wat			No ⊠	Depth (inches):					
Water Table			No 🖂	Depth (inches):					
Saturation P		Yes 🗌	No 🛚	Depth (inches):		Wetla	and Hyd	irolog	y Present? Yes ☐ No ⊠
(includes cap Describe Re		m gauge.	monitor	ing well, aerial photos, previ	ious insp	ections).	if availa	ble:	
	2 2 2 2 3 3 (0.100)	J		5 - 1 / p.//acco.j pro-1		, ,	3.13		
Remarks: No	n hydrology presen	t and no w	etland l	nydrology indicators were ob	served				
. Comano. N	, arelegy present	W	Juana I	., a.o.og, maioatois word of					

Project/Site: Bond Road/SR 305	(City/County	Sampling Date: 11/2010 6-2016		
Applicant/Owner: Edward Rose and Sons			State: WA	Sampling Point: TH 13-A	
Investigator(s): J. Bartlett			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.
Landform (hillslope, terrace, etc.): hillslope		Local relie	f (concave,	convex, none): sloping	Slope (%): <u>5%</u>
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%	slopes			NWI classificat	ion: <u>UPL</u>
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes ⊠	No □ (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology sign	ificantly dist	turbed?	Are "No	ormal Circumstances" pres	ent? Yes ⊠ No □
Are Vegetation, Soil, or Hydrology natur	rally probler	matic?	(If need	ed, explain any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map s	showing	samplin	g point le	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒		le th	e Sampled	Aroa	
Hydric Soil Present? Yes ☐ No ☒			•	nd? Yes ☐ No	. M
Wetland Hydrology Present? Yes ☐ No ☒					_
Remarks: Upland area along trail that runs between the Ve where trail curves to the south. This test hole was located 12-A during the previous delineation). VEGETATION – Use scientific names of plant	during the N				
•	Absolute	Dominant	Indicator	Dominance Test works	heet:
<u>Tree Stratum</u> (Plot size: <u>30' diameter</u>)	% Cover			Number of Dominant Sp	
1. Alnus rubra	20%			That Are OBL, FACW, or	r FAC: <u>1</u> (A)
2				Total Number of Domina	
3				Species Across All Strata	a: <u>6</u> (B)
4 Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C		Percent of Dominant Spe That Are OBL, FACW, or	
Oemleria cerasiformis	15%	Yes	FACU	Prevalence Index work	sheet:
Holodiscus discolor	15%			Total % Cover of:	Multiply by:
3. Rubus parviflorus				OBL species	x 1 =
4				FACW species	x 2 =
5				FAC species	x 3 =
	35%	= Total C	over		x 4 =
Herb Stratum (Plot size: 30 feet)	500/	V	E4011	UPL species	
1. Rubus ursinus	50%	Yes	FACU FACU	Column Totals:	(A) (B)
2. Polystichum munitum	20% 10%	Yes	FACU FACW	Prevalence Index	= B/A =
Carex deweyana Juncus effusus	5%	No No	FACW	Hydrophytic Vegetation	
5.	· ·			☐ Dominance Test is >	
6				☐ Prevalence Index is	
7				☐ Morphological Adapt	ations ¹ (Provide supporting
8					or on a separate sheet)
9				☐ Wetland Non-Vascul	
10					nytic Vegetation¹ (Explain)
11				be present, unless distur	and wetland hydrology must bed or problematic.
Woody Vine Stratum (Plot size:)	85%	= Total C	over		·
Rubus armeniacus Z.	10%	Yes	<u>FAC</u>	Hydrophytic Vegetation	_
% Bare Ground in Herb Stratum 5%	10%	= Total C	over	Present? Yes	□ No ⊠
Remarks: The hydrophytic vegetation criterion is not met be	ecause ther	re is less th	an 50% do	minance by FAC.	
				-	

Profile Description: (D	escribe to the d	epth needed to doc	ument the indicate	or or confirm	n the absence of indicators.)
	Matrix		dox Features		
(inches) Color (moi		Color (moist)	<u>%</u> Type		Texture Remarks
<u>0-3"</u> <u>10YR 4/3</u>	100%			_	gr sa loa
3-16" <u>10YR 4/4</u>	100%			_	gr sa lo
		<u> </u>			
		· -			
¹ Type: C=Concentration Hydric Soil Indicators :				ated Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
	(Applicable to a				-
☐ Histosol (A1) ☐ Histic Epipedon (A2)		☐ Sandy Redox☐ Stripped Matri			☐ 2 cm Muck (A10) ☐ Red Parent Material (TF2)
☐ Black Histic (A3)		• • • • • • • • • • • • • • • • • • • •	Mineral (F1) (exce	ept MLRA 1)	Other (Explain in Remarks)
☐ Hydrogen Sulfide (A	1)	☐ Loamy Gleyed	, , ,	,	
☐ Depleted Below Dark	Surface (A11)	☐ Depleted Matr			
☐ Thick Dark Surface (•	☐ Redox Dark S	` '		³ Indicators of hydrophytic vegetation and
☐ Sandy Mucky Minera		☐ Depleted Dark	, ,		wetland hydrology must be present,
Sandy Gleyed Matrix		☐ Redox Depres	ssions (F8)		unless disturbed or problematic.
Restrictive Layer (if pre	-				
Type:		_			Hudria Cail Brasanta - Vas 🗔 - Na 🕅
Depth (inches):				" "	Hydric Soil Present? Yes ☐ No ☒
Remarks: The hydric soi	criterion is not m	net because of the hi	gn chroma of the so	oli profile.	
HYDROLOGY					
Wetland Hydrology Ind	icators:				
Primary Indicators (minir	<u>num of one requi</u>	red; check all that ap	ply)		Secondary Indicators (2 or more required)
☐ Surface Water (A1)		☐ Water-St	ained Leaves (B9)	(except MLR	RA Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High Water Table (A	2)	1, 2,	4A, and 4B)		4A, and 4B)
☐ Saturation (A3)		☐ Salt Crus	` '		☐ Drainage Patterns (B10)
☐ Water Marks (B1)			nvertebrates (B13)		☐ Dry-Season Water Table (C2)
Sediment Deposits (32)		Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
☐ Drift Deposits (B3)			Rhizospheres alor		
Algal Mat or Crust (E	4)		e of Reduced Iron (☐ Shallow Aquitard (D3)
☐ Iron Deposits (B5)	(D.O.)		on Reduction in Til	, ,	, , ,
☐ Surface Soil Cracks			or Stressed Plants	(D1) (LRR A)	
☐ Inundation Visible or		,	kplain in Remarks)		☐ Frost-Heave Hummocks (D7)
☐ Sparsely Vegetated Field Observations:	Concave Sunace	(DO)			
Surface Water Present?	V00 🗖	No ⊠ Depth (inch	00).		
			es):		
Water Table Present?			es):		and Hydrology Procent? Vec 🗆 No 🖂
Saturation Present? (includes capillary fringe		No 🛛 Depth (inch	es):	_ wette	and Hydrology Present? Yes ☐ No ⊠
Describe Recorded Data		monitoring well, aeria	Il photos, previous	inspections),	if available:
Remarks: No hydrology	present and no w	etland hydrology indi	cators were observ	/ed.	

Project/Site: Bond Road/SR 305		City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010 6-201	
Applicant/Owner: Edward Rose and Sons			State: WA	Sampling Point: TH 14-A		
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): Terrace		_ Local reli	ef (concave	, convex, none): sloping	Slope (%): <u>5%</u>	
Subregion (LRR): MLRA 2	Lat:					
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-0						
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology s	-			ormal Circumstances" pres	ent? Yes⊠ No □	
Are Vegetation, Soil, or Hydrology na				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site ma					,	
Hydrophytic Vegetation Present? Yes ☐ No [lo ti	no Compled	I Aron		
Hydric Soil Present? Yes ☐ No 🛭	⊴		ne Sampled nin a Wetlar		o ⊠	
Wetland Hydrology Present? Yes ☐ No ☑						
Remarks: Upland area in northeast corner of project site here was collected during the 2006 delineation. It is flag				e November 2010 field deli	neation and data presented	
nere was collected during the 2000 delineation. It is had	gged as Test I	IOIC A-13 II	ii tile lielu.			
\						
VEGETATION – Use scientific names of pla						
Tree Stratum (Plot size: 30 feet)	Absolute % Cover		Indicator Status	Dominance Test works		
1. Tsuga heterophylla		Yes		Number of Dominant Spe That Are OBL, FACW, or		
2. Frangula purshiana		No		Total Number of Domina		
3				Species Across All Strata		
4				Percent of Dominant Spe	eries	
Sapling/Shrub Stratum (Plot size: 30' diameter)	30%	= Total C	Cover		r FAC: 0 (A/B)	
1. Gaultheria shallon	50%	Yes	FACU	Prevalence Index work		
2. Vaccinium ovatum		<u>No</u>			Multiply by:	
3. Vaccinium parvifolium					x 1 =	
4				*	x 2 = x 3 =	
5		= Total C			x 4 =	
Herb Stratum (Plot size: 30 feet)	0070	rotar c)OVC1		x 5 =	
Polystichum munitum	5%	Yes	FACU		(A) (B)	
2					D/A	
3				Hydrophytic Vegetation	= B/A =	
4				☐ Dominance Test is >		
5				☐ Prevalence Index is		
6 7				_	tations ¹ (Provide supporting	
8.					or on a separate sheet)	
9.				Wetland Non-Vascul		
10					nytic Vegetation ¹ (Explain)	
11				'Indicators of hydric soil be present, unless distur	and wetland hydrology must rbed or problematic.	
	5%	= Total C	Cover	,		
Woody Vine Stratum (Plot size:)				Herdman besti a		
1				Hydrophytic Vegetation		
2		= Total C		_	□ No ⊠	
% Bare Ground in Herb Stratum 95%	_					
Remarks: The hydrophytic vegetation criterion is not me	et because the	re is less th	nan 50% do	minance by FAC.		

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.	re Remarks
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	<u></u>
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Bellow Dark Surface (A11) Depleted Bellow Dark Surface (A12) Sandy Mucky Mineral (F1) (except MLRA 1) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F2) Depleted Bellow Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Remarks: The hydric soil criteri	
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Indicators: Applicable to all LRRs, unless otherwise noted. In	
Indicators: Applicable to all LRRs, unless otherwise noted. In	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Bedox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Pepth (inches): Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. WYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Water Present? Yes No Depth (inches): Wetland Hydriculudes capillarly fringe) Prescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availar available prescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availar	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Depth (inches): Remarks: The hydric soil criterion is not met because of the high chroma of the soil profile. Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Water Present? Yes No Depth (inches): Wetland Hydrolosy: Wetland Hydrology Indicators: Iron Deposits (B3) Surface Water Present? Yes No Depth (inches): Wetland Hydrology Indicators: Indicators (A1) Wetland Hydrology Indicators: Wetland Hydrology Indicators: Indicators (A1) Wetland H	
Histosol (A1)	² Location: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)	ndicators for Problematic Hydric Soils ³ :
Black Histic (A3)	2 cm Muck (A10)
Hydrogen Sulfide (A4)	-
Depleted Below Dark Surface (A11) □ Depleted Matrix (F3) □ Thick Dark Surface (A12) □ Redox Dark Surface (F6) □ Redox Dark Surface (F6) □ Redox Dark Surface (F7) □ Sandy Mucky Mineral (S1) □ Depleted Dark Surface (F7) □ Redox Depressions (F8)	
Thick Dark Surface (A12)	
Sandy Mucky Mineral (S1)	ndicators of hydrophytic vegetation and
Restrictive Layer (if present): Type:	wetland hydrology must be present,
Type:	unless disturbed or problematic.
PyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	
YDROLOGY	
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	ic Soil Present? Yes 🗌 No 🖂
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Surface Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availar and the property of the previous inspections), if availar and the previous inspections in the previous inspections in the previous inspections in the previous inspec	
Surface Water (A1)	
High Water Table (A2) Saturation (A3) Water Marks (B1) Personic of Reduced Iron (C4) Inon Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Sparsely Notations (Stream gauge, monitoring well, aerial photos, previous inspections), if availance water and the saturation of the present of the saturation of the saturation of the present of the saturation of t	Secondary Indicators (2 or more required)
High Water Table (A2) Saturation (A3) Water Marks (B1) Personic of Reduced Iron (C4) Inon Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Sparsely Notations (Stream gauge, monitoring well, aerial photos, previous inspections), if availance water and the saturation of the present of the saturation of the saturation of the present of the saturation of t	☐ Water-Stained Leaves (B9) (MLRA 1, 2
Saturation (A3)	4A, and 4B)
Water Marks (B1)	☐ Drainage Patterns (B10)
□ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ Stunted or Stressed Plants (D1) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrocludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available contents are presented in the present of the	☐ Dry-Season Water Table (C2)
□ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☒ Depth (inches): □ Water Table Present? Yes □ No ☒ Depth (inches): □ Wetland Hydical Concave Surface (B8) Saturation Present? Yes □ No ☒ Depth (inches): □ Wetland Hydical Concave Surface (B8) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available concave Surface (B8)	☐ Saturation Visible on Aerial Imagery (CS
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☒ Depth (inches): □ Water Table Present? Yes □ No ☒ Depth (inches): □ Wetland Hydiculdes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available of the property of the	☐ Geomorphic Position (D2)
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Water Table Present? Yes □ No ☑ Depth (inches): □ Wetland Hydrocludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available	☐ Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☒ Depth (inches): Wetland Hydical Concave Surface (B8)	☐ FAC-Neutral Test (D5)
☐ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Saturation Present? Yes ☐ No ☒ Depth (inches): Wetland Hydical Stream gauge, monitoring well, aerial photos, previous inspections), if available of the provided Pata (stream gauge, monitoring well, aerial photos, previous inspections), if available of the provided Pata (stream gauge, monitoring well, aerial photos, previous inspections), if available of the provided Pata (stream gauge, monitoring well, aerial photos, previous inspections), if available of the provided Pata (stream gauge, monitoring well, aerial photos, previous inspections).	Raised Ant Mounds (D6) (LRR A)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydical Control Co	☐ Frost-Heave Hummocks (D7)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydical Stream gauge, monitoring well, aerial photos, previous inspections), if availating the same provided by the sa	
Water Table Present? Yes □ No ☑ Depth (inches): Saturation Present? Yes □ No ☑ Depth (inches): Wetland Hydical (inches): Wetland Hydical (inches): Wetland Hydical (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availating the provious inspections in the provious inspection in the provious in the provious inspection in the provious inspection in the pr	
Saturation Present? Yes No Depth (inches): Wetland Hydincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availating the control of the co	
includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availa	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if availa	drology Present? Yes ☐ No ⊠
	hla.
Remarks: No hydrology present and no wetland hydrology indicators observed during the field visits.	ble:
Remarks: No hydrology present and no wetland hydrology indicators observed during the field visits.	

Project/Site: Bond Road/SR 305	City/County: Poulsbo, Kitsap Sampling Date:11/20						
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 15-A		
Investigator(s): J. Bartlett			Section, To	ownship, Range: <u>S 10 & 11</u>	T 26 N, R 1E	≣.	
Landform (hillslope, terrace, etc.): terrace	Local relief (concave			convex, none): undulating	;	Slope (%): <u>5%</u>	
Subregion (LRR): MLRA 2	Lat:			Long:	Da	atum:	
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%							
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes⊠	No 🏻	
Are Vegetation, Soil, or Hydrology natu	-			ed, explain any answers in		140 🗖	
SUMMARY OF FINDINGS – Attach site map						features, etc.	
			9				
Hydrophytic Vegetation Present? Yes ☐ No ☒		Is th	he Sampled	Area			
Hydric Soil Present? Yes ☐ No ☒		with	nin a Wetlar	nd? Yes ☐ No			
Wetland Hydrology Present? Yes ☐ No ☒ Remarks: Upland area in northwest corner of project site.	This hale w	as not four	nd during the	a November 2010 field deli	neation and d	lata presented	
here was collected during the 2006 delineation. It is flagge				e November 2010 neid dem	leation and u	ata presenteu	
VEGETATION – Use scientific names of plant	· s						
- Coo Continue Names of Plant	Absolute	Dominant	t Indicator	Dominance Test works	heet:		
Tree Stratum (Plot size: 30 feet)			Status	Number of Dominant Spe			
1. Salix scouleriana	15%	Yes	FAC	That Are OBL, FACW, or		(A)	
2. Thuja plicata	15%	Yes	FAC	Total Number of Domina	∩t		
3. Acer macrophyllum	5%			Species Across All Strata	ı: <u>7</u>	(B)	
4. Pseudotsuga menziesii	<u>5%</u>			Percent of Dominant Spe	cies		
Sapling/Shrub Stratum (Plot size: 30' diameter)	40%	= Total C	Cover	That Are OBL, FACW, or		(A/B)	
1. Gaultheria shallon	70%	Yes	FACU	Prevalence Index works	sheet:		
Rhododedron macrophyllum	20%			Total % Cover of:			
3. Rubus spectabilis				OBL species			
4				FACW species			
5				FACULARIAN			
Herb Stratum (Plot size: 30 feet)	95%	= Total C	Jover	FACU species			
1. Polystichum munitum	20%	Yes	FACU	Column Totals:			
2. Pteridium aquilinum	5%	No	FACU	Column Totals.	(^)	(D)	
3. Juncus effusus	5%	No	FACW	Prevalence Index =	= B/A =		
4				Hydrophytic Vegetation			
5				Dominance Test is >			
6				☐ Prevalence Index is			
7				☐ Morphological Adapta data in Remarks	ations (Providor on a separ	de supporting ate sheet)	
8				☐ Wetland Non-Vascula		,	
9				☐ Problematic Hydroph	ytic Vegetatic	on¹ (Explain)	
10		-		¹ Indicators of hydric soil a			
11		= Total C	Covor	be present, unless distur	ped or proble	matic.	
Woody Vine Stratum (Plot size:)	30%	= Total C	Jovei				
1. Rubus armeniacus	15%	Yes	FAC	Hydrophytic			
2. Rubus laciniatus	15%	Yes	FACU	Vegetation Present? Yes	□ No ⊠		
0 D 0 D 1 D 1 D 0 D 7	30%	= Total C	Cover	. 10001111 165			
% Bare Ground in Herb Stratum 50% Remarks: The hydrophytic vegetation criterion is not met b	ocalies that	ra je lace +l	han 50% da	minance by EAC			
Tromains. The hydrophytic vegetation chiteholi is not met b	ccause lilel	10 10 1035 l	nan 30 /6 u0l	mmano e by FAO.			

Depth (inches)	Matrix	%	Calc	Redo r (moist)	x Features	Type ¹	Loc ²	Toster	e Remarks
(inches)	Color (moist)			(moist)	%	туре	LOC		
<u>0-16"</u>	10YR 5/4	100%	· <u></u>					gr sa lo	oa
			·		· ——				
	-							-	
			•						
1= 0.0									21
	oncentration, D=De Indicators: (Appl						d Sand Gi		² Location: PL=Pore Lining, M=Matrix. dicators for Problematic Hydric Soils ³ :
-		icable to a				u. <i>)</i>			•
☐ Histosol	oipedon (A2)			Sandy Redox (S Stripped Matrix] 2 cm Muck (A10)] Red Parent Material (TF2)
☐ Black Hi				oamy Mucky N		(excent	MIRA 1)		•
	en Sulfide (A4)			oamy Maoky N	, ,	(схосрі	IIILIX I)	<u> </u>	Total (Explain in Nemarko)
	d Below Dark Surfa	ce (A11)		Depleted Matrix	. ,				
	ark Surface (A12)	, ,		Redox Dark Sur	. ,			³ lr	ndicators of hydrophytic vegetation and
☐ Sandy M	Mucky Mineral (S1)			epleted Dark S	Surface (F7	·)			wetland hydrology must be present,
	Gleyed Matrix (S4)			Redox Depressi	ons (F8)				unless disturbed or problematic.
Restrictive	Layer (if present):								
Type:			_						
Depth (in	ches):		_					Hydri	ic Soil Present? Yes ☐ No ⊠
Remarks: Th	ne hydric soil criteri	on is not m	net beca	use of the high	chroma of	the soil	orofile.		
HYDROLO									
Wetland Hy	drology Indicator	s:							
Primary Indi	cators (minimum of	one requi	red; che	ck all that appl	y)				Secondary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-Stai	ned Leaves	s (B9) (e x	cept MLF	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ater Table (A2)			1, 2, 4	A, and 4B)				4A, and 4B)
☐ Saturation	on (A3)			☐ Salt Crust					4A, aliu 4D)
☐ Water M	larks (B1)			☐ Aquatic Inv					☐ Drainage Patterns (B10)
	, ,			Aqualic III	ertebrates	(B13)			
☐ Sedimer	nt Deposits (B2)			☐ Hydrogen :					☐ Drainage Patterns (B10)
					Sulfide Odd	or (C1)	_iving Roo	ts (C3)	□ Drainage Patterns (B10)□ Dry-Season Water Table (C2)
☐ Drift Dep	nt Deposits (B2)			☐ Hydrogen	Sulfide Odo hizosphere	or (C1) es along l	-	ts (C3)	☐ Drainage Patterns (B10)☐ Dry-Season Water Table (C2)☐ Saturation Visible on Aerial Imagery (C9)
☐ Drift Dep☐ Algal Ma	nt Deposits (B2) posits (B3)			☐ Hydrogen :☐ Oxidized R	Sulfide Odo hizosphere of Reduced	or (C1) es along l Iron (C4)		 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
☐ Drift Dep☐ Algal Ma☐ Iron Dep	nt Deposits (B2) posits (B3) at or Crust (B4)			☐ Hydrogen : ☐ Oxidized R ☐ Presence o	Sulfide Odo hizosphere of Reduced n Reduction	or (C1) es along I I Iron (C4 n in Tilled) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
☐ Drift Dep ☐ Algal Ma ☐ Iron Dep ☐ Surface	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	Imagery (☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron	Sulfide Odo hizosphere of Reduced on Reduction Stressed F	or (C1) es along I I Iron (C4 n in Tilled Plants (D2) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
☐ Drift Dep ☐ Algal Ma ☐ Iron Dep ☐ Surface ☐ Inundation	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)		B7)	☐ Hydrogen S ☐ Oxidized R ☐ Presence C ☐ Recent Iron ☐ Stunted or	Sulfide Odo hizosphere of Reduced on Reduction Stressed F	or (C1) es along I I Iron (C4 n in Tilled Plants (D2) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Drift Dep ☐ Algal Ma ☐ Iron Dep ☐ Surface ☐ Inundation	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concar		B7)	☐ Hydrogen S ☐ Oxidized R ☐ Presence C ☐ Recent Iron ☐ Stunted or	Sulfide Odo hizosphere of Reduced on Reduction Stressed F	or (C1) es along I I Iron (C4 n in Tilled Plants (D2) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Drift Dep ☐ Algal Ma ☐ Iron Dep ☐ Surface ☐ Inundation ☐ Sparsely	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar vations:	ve Surface	B7)	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp	Sulfide Odd hizosphere of Reduced in Reduction Stressed F lain in Rem	or (C1) es along I I Iron (C4 n in Tilled Plants (D' narks)) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely☐ Field Obser	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concar rvations: ter Present?	ve Surface	B7) (B8) No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp	Sulfide Odd hizosphere of Reduced in Reduction Stressed F lain in Rem	or (C1) es along I Iron (C4 n in Tilled Plants (D' narks)) I Soils (C6	5)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar vations: ter Present?	ve Surface Yes	B7) (B8) No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches	Sulfide Odd hizosphere of Reduced in Reduction Stressed F lain in Rem b):	or (C1) es along l Iron (C4 n in Tillec Plants (D' narks)) I Soils (C6	(i)	 □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar rvations: ter Present? Present? Present? pillary fringe)	ve Surface Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence c ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem):	or (C1) es along l I Iron (C4 n in Tilleo Plants (D' narks)) I Soils (C6	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar rvations: ter Present? Present?	ve Surface Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence c ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem):	or (C1) es along l I Iron (C4 n in Tilleo Plants (D' narks)) I Soils (C6	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar rvations: ter Present? Present? Present? pillary fringe)	ve Surface Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence c ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem):	or (C1) es along l I Iron (C4 n in Tilleo Plants (D' narks)) I Soils (C6	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely☐ Field Obser Surface Water Table Saturation P☐ (includes ca☐ Describe Refered D	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concar rvations: ter Present? Present? Present? pillary fringe)	Yes Yes Yes Yes Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches Depth (inches ng well, aerial)	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem b):	or (C1) es along l I ron (C4 n in Tilleo Plants (D' narks)	Wetlepections),	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely☐ Field Obser Surface Water Table Saturation P☐ (includes ca☐ Describe Refered D	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concar vations: ter Present? Present? pillary fringe) ecorded Data (strea	Yes Yes Yes Yes Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches Depth (inches ng well, aerial)	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem b):	or (C1) es along l I ron (C4 n in Tilleo Plants (D' narks)	Wetlepections),	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely☐ Field Obser Surface Water Table Saturation P☐ (includes ca☐ Describe Refered D	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concar vations: ter Present? Present? pillary fringe) ecorded Data (strea	Yes Yes Yes Yes Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches Depth (inches ng well, aerial)	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem b):	or (C1) es along l I ron (C4 n in Tilleo Plants (D' narks)	Wetlepections),	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Drift Dep☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundatio☐ Sparsely☐ Field Obser Surface Water Table Saturation P☐ (includes ca☐ Describe Refered D	nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concar vations: ter Present? Present? pillary fringe) ecorded Data (strea	Yes Yes Yes Yes Yes	B7) (B8) No ⊠ No ⊠ No ⊠	☐ Hydrogen 3 ☐ Oxidized R ☐ Presence 0 ☐ Recent Iron ☐ Stunted or ☐ Other (Exp Depth (inches Depth (inches Depth (inches ng well, aerial)	Sulfide Odd hizosphere of Reduced n Reduction Stressed F lain in Rem b):	or (C1) es along l I ron (C4 n in Tilleo Plants (D' narks)	Wetlepections),	and Hyd	□ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)

Project/Site: Bond Road/SR 305		City/Cour	nty: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11/2010	6-2016
Applicant/Owner: Edward Rose and Sons			State: WA	Sampling Point: TH 16-A		
Investigator(s): <u>J. Bartlett</u>			_ Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): terrace		Local re	lief (concave,	, convex, none): undulating	Slope (%):	5%
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-3						
Are climatic / hydrologic conditions on the site typical for th					.o <u>o. z</u>	
Are Vegetation, Soil, or Hydrology sig	-			ormal Circumstances" pres	ent? Ves ⊠ No □	
				•		
Are Vegetation, Soil, or Hydrology nat				ed, explain any answers in		
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ng point l	ocations, transects,	important features	s, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☒						
Hydric Soil Present? Yes ☐ No ☒			the Sampled			
Wetland Hydrology Present? Yes ☐ No ☒		Wit	thin a Wetlar	nd? Yes ☐ No) 🛚	
Remarks: Northwest corner of the upland island in the mid	ddle of Wetla	and A. Up	oland is forest	ted but the sample area is	within a canopy opening	so is
dominated mainly by shrub vegetation.						
VEGETATION – Use scientific names of plan	nts.					
			nt Indicator	Dominance Test works	heet:	
Tree Stratum (Plot size: 30 feet) 1			Status	Number of Dominant Spe That Are OBL, FACW, or		(A)
2				Total Number of Domina	nt	
3				Species Across All Strata		(B)
4				Percent of Dominant Spe	acies	
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total	Cover	That Are OBL, FACW, or		(A/B)
1. Rubus spectabilis	50%	Yes	FAC	Prevalence Index work		
Vaccinium parvifolium	5%	No	<u>UPL</u>		Multiply by:	
3. Oemleria cerasiformes	5%	No	FACU	OBL species		
4. <u>Ilex opaca</u>	5%	No	<u>FACU</u>	FACW species		
5			<u> </u>	FAC species		
Herb Stratum (Plot size: 30 feet)	65%	= Total	Cover	FACU species		
1. Polystichum munitum	30%	Yes	FACU	UPL species		
Dryopteris expansa				Column Totals:	(A)	_ (B)
3.				Prevalence Index	= B/A =	
4				Hydrophytic Vegetation	n Indicators:	
5				☐ Dominance Test is >	50%	
6				☐ Prevalence Index is	3.0 ¹	
7					ations ¹ (Provide supporti or on a separate sheet)	
8				☐ Wetland Non-Vascul	ar Plants ¹	
9				☐ Problematic Hydroph	ytic Vegetation¹ (Explair	n)
10				¹ Indicators of hydric soil		nust
11	35%			be present, unless distur	bed or problematic.	
Woody Vine Stratum (Plot size:)	33 /0	_ Total	Covei			
1			_	Hydrophytic		
2				Vegetation Present? Yes	□ No ⊠	
8/8 9 1/1/1 9 1 2		= Total	Cover			
% Bare Ground in Herb Stratum 65 Remarks: The hydrohphytic vegetation criterion is not me	t hoogues th	oro io sat	arostor than	50% dominance by 540 -	nd EACW	
Remarks. The hydronphytic vegetation chienon is not me	i Decause III	C1 C 19 110[greater triali	50 /6 dominance by FAC a	HUT ACVV.	

Depth	cription: (Describ Matrix	e to the u	_	Redox Features			ŕ
(inches)	Color (moist)	%	Colo	or (moist) % Type	e ¹ Loc ²	Textu	re Remarks
0-7"	10YR 3/3	100%				loam	
<u>7-16"</u>	10YR 4/3	100%				gr sa lo	<u> </u>
				<u> </u>		-	
							
1Type: C-C	oncentration D-De	nletion P	M-Rad	luced Matrix, CS=Covered or Co	nated Sand G	raine	² Location: PL=Pore Lining, M=Matrix.
				s, unless otherwise noted.)	Jaleu Sanu Gi		ndicators for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (S5)			2 cm Muck (A10)
	pipedon (A2)			Stripped Matrix (S6)			Red Parent Material (TF2)
☐ Black Hi				Loamy Mucky Mineral (F1) (exc	ept MLRA 1)		-
	n Sulfide (A4)		□ I	Loamy Gleyed Matrix (F2)			
	d Below Dark Surfa	ce (A11)		Depleted Matrix (F3)			
	ark Surface (A12)			Redox Dark Surface (F6)		³ l	ndicators of hydrophytic vegetation and
-	lucky Mineral (S1)			Depleted Dark Surface (F7)			wetland hydrology must be present,
	leyed Matrix (S4) Layer (if present):		'	Redox Depressions (F8)			unless disturbed or problematic.
	-1 X:		_			I la calm	is Cail Brassout? Vas 🗆 Na 🕅
. ,	ches):					Hyar	ic Soil Present? Yes ☐ No ⊠
Remarks: If	ne hydric soil criteri	on is not n	net beca	ause of the high chroma of the s	soil profile.		
HYDROLO	GY						
Wetland Hy	drology Indicators	S:					
	cators (minimum of	one requi	ired; che	eck all that apply)			Secondary Indicators (2 or more required)
☐ Surface				☐ Water-Stained Leaves (B9) (except MLF	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
_	ter Table (A2)			1, 2, 4A, and 4B)			4A, and 4B)
☐ Saturation	· ,			☐ Salt Crust (B11)			☐ Drainage Patterns (B10)
☐ Water M				☐ Aquatic Invertebrates (B13			☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydrogen Sulfide Odor (C1	•		☐ Saturation Visible on Aerial Imagery (C9)
	oosits (B3)			Oxidized Rhizospheres alo		ts (C3)	Geomorphic Position (D2)
-	it or Crust (B4)			☐ Presence of Reduced Iron			Shallow Aquitard (D3)
•	osits (B5)			Recent Iron Reduction in T	,	•	FAC-Neutral Test (D5)
	Soil Cracks (B6)		(D-)	Stunted or Stressed Plants)	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	0,	` '	☐ Other (Explain in Remarks)		☐ Frost-Heave Hummocks (D7)
	Vegetated Concav	e Surface	e (B8)				
Field Obser		·		D (1 (1)			
Surface Wat			No 🖂	Depth (inches):			
Water Table			No 🛛	Depth (inches):			
		Yes 🗌	No 🛛	Depth (inches):	_ Wetl	and Hy	drology Present? Yes ☐ No ⊠
Saturation P				ring well parial photos provious	inspections)	if availa	hlo:
(includes ca		m gauge	monitor	IIIU WEII. AEIIAI DIIUIUS. DIEVIUIS			DIE.
(includes ca	corded Data (strea	m gauge,	monitor	ing well, aerial photos, previous	, порсополој,		DIE.
(includes ca Describe Re	corded Data (strea						
(includes ca Describe Re	corded Data (strea			hydrology indicators were obser			
(includes ca Describe Re	corded Data (strea						
(includes ca Describe Re	corded Data (strea						

Project/Site: Bond Road/SR 305		City/County	/: Poulsbo,	Kitsap	_ Sampling Date:1′	1/2010 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: <u>T</u>	ΓΗ 17-A
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 1</u>	1, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): undulatin	g Slop	e (%): <u>5%</u>
Subregion (LRR): MLRA 2	Lat:			Long:	Datum	ı:
Soil Map Unit Name: <u>41 Poulsbo gravelly sandy loam, 15</u>	-30% slopes			NWI classifica	ation: <u>PSSB</u>	
Are climatic / hydrologic conditions on the site typical for	this time of yea	ır? Yes ⊠	No □ (I	f no, explain in Remarks.))	
Are Vegetation, Soil, or Hydrology s	significantly dis	turbed?	Are "No	ormal Circumstances" pre	sent? Yes⊠ No	o 🗆
Are Vegetation, Soil, or Hydrology n	aturally probler	natic?	(If need	ed, explain any answers i	n Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing	samplin	g point le	ocations, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present? Yes ⊠ No [le th	e Sampled	I Area		
Hydric Soil Present? Yes ⊠ No [in a Wetlar		No 🏻	
Wetland Hydrology Present? Yes ⊠ No ['			_	_	
Remarks: Wetland area just northwest of the upland isla an area that has a canopy opening so is dominated by		51. Simila	ar vegetatio	n conditions as observed	at Test Hole 16-A a	as it is within
VEGETATION – Use scientific names of pla						
<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	Absolute % Cover	Dominant Species?		Dominance Test work		
1		•		Number of Dominant Sp That Are OBL, FACW, of		(A)
2				Total Number of Domin	ant	
3				Species Across All Stra		(B)
4				Percent of Dominant Sp	pecies	
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C	over	That Are OBL, FACW, o		(A/B)
1. Rubus spectabilis	50%	Yes	FAC	Prevalence Index wor	ksheet:	
2. Ilex opaca				Total % Cover of:	Multiply	by:
3				OBL species	x 1 =	
4				FACW species		
5				FAC species		
Herb Stratum (Plot size: 30 feet)	<u>55%</u>	= Total C	over	FACU species UPL species		
Polystichum munitum	20%	Yes	<u>FACU</u>	Column Totals:		
2. Athyrium filix-femina	20%	Yes	FAC	Goldmir Totals.	(^)	(D)
3. Rubus ursinus	10%	No	<u>FACU</u>	Prevalence Index	= B/A =	
4				Hydrophytic Vegetatio		
5				□ Dominance Test is a second of the		
6				☐ Prevalence Index is		
7				☐ Morphological Adap data in Remarks	s or on a separate s	
8				☐ Wetland Non-Vascu	ular Plants ¹	
9				☐ Problematic Hydrop	hytic Vegetation ¹ (F	Explain)
10 11				¹ Indicators of hydric soi		
		= Total C	over	be present, unless distu	Irbed or problemation	C.
Woody Vine Stratum (Plot size:)						
1				Hydrophytic Vegetation		
2					s 🛛 No 🗌	
% Bare Ground in Herb Stratum 50%		= Total C	over			
Remarks: Hydrophytic vegetation criterion is met becau					ınk cabbage was vi	sible in other
locations of this wetland with none observed in this area	a possibly Deca	iuoc il Hau	ureu back p	onor to the site visit.		

Lionie De	scription: (Descri	be to the u	epui ne	eaea to aocur	nent the i	naicator	or confirm	n the ab	sence	of indicators.)
Depth	Matri				x Features					
(inches)	Color (moist)	%		or (moist)	<u></u> %	Type ¹	Loc ²	Textur	re	Remarks
<u>0-9"</u>	10YR 3/1	<u>100%</u>			-			loam		-
<u>9-16"</u>	10YR 3/2	85%	<u>10 Y</u>	R 4/6	15%	<u>C</u>	<u>M</u>	gr sa lo)	mottles few but prominent
	_									
	_									
¹Type: C=	Concentration, D=[Depletion, R	M=Red	uced Matrix. CS	S=Covered	or Coate	ed Sand G	rains.	² Lo	cation: PL=Pore Lining, M=Matrix.
	il Indicators: (App									ors for Problematic Hydric Soils ³ :
Histos	ol (A1)		\boxtimes :	Sandy Redox (S	55)] 2 cm	n Muck (A10)
☐ Histic I	Epipedon (A2)			Stripped Matrix					Red	Parent Material (TF2)
☐ Black I	Histic (A3)		□ I	_oamy Mucky M	lineral (F1) (except	MLRA 1)] Othe	er (Explain in Remarks)
	gen Sulfide (A4)			_oamy Gleyed N						
-	ed Below Dark Sur	face (A11)		Depleted Matrix						
	Dark Surface (A12)			Redox Dark Sur	, ,			3lı		ors of hydrophytic vegetation and
-	Mucky Mineral (S1			Depleted Dark S	•	7)				and hydrology must be present,
	Gleyed Matrix (S4)		∐ F	Redox Depressi	ons (F8)				unles	ss disturbed or problematic.
	e Layer (if present									
	Constant No.		_					Ularata	:- 0-!!	Dunnant 2 Van M. Na 🗆
1	inches):		_							Present? Yes ⊠ No □
Remarks:	The hydric soil crite	rion is met l	because	e the soil profile	has chara	cteristics	for hydric	soil indic	cator S	5.
HYDROL	OGY									
Wetland F	lydrology Indicato	rs:								
Primary In	dicators (minimum	of one requi	ired; che	eck all that appl	y)				Seco	ndary Indicators (2 or more required)
☐ Surfac	e Water (A1)			☐ Water-Stair	ned Leave	s (B9) (e	xcept MLI	RA	\square w	/ater-Stained Leaves (B9) (MLRA 1, 2,
☐ High W	Vater Table (A2)			1, 2, 4 <i>A</i>	A, and 4B)		-			4A, and 4B)
	tion (A3)			☐ Salt Crust ((B11)				□ D	rainage Patterns (B10)
☐ Water	Marks (B1)			☐ Aquatic Inv	ertebrates	(B13)			□ D	ry-Season Water Table (C2)
☐ Sedim	ent Deposits (B2)			☐ Hydrogen \$	Sulfide Od	or (C1)			□ S	aturation Visible on Aerial Imagery (C9)
☐ Drift D	eposits (B3)			☐ Oxidized R			Living Roo	ots (C3)	□G	eomorphic Position (D2)
☐ Algal N	Mat or Crust (B4)			☐ Presence of		_	-		□ s	hallow Aquitard (D3)
☐ Iron De	eposits (B5)			☐ Recent Iron				6)	□ F/	AC-Neutral Test (D5)
				☐ Stunted or	Stressed	Plants (D	1) (LRR A	.)	□R	aised Ant Mounds (D6) (LRR A)
☐ Surfac	e Soil Cracks (B6)									root Hoove Hummooks (DZ)
	e Soil Cracks (B6) ation Visible on Aeri	al Imagery ((B7)	Other (Exp	lain in Rer	narks)			⊔ н	rost-Heave Hummocks (D7)
☐ Inunda			` '		lain in Rer	marks)				lost-neave nummocks (D7)
☐ Inunda	ation Visible on Aeri		` '		lain in Rer	narks)			<u> </u>	ost-neave numinocks (D7)
☐ Inunda☐ Sparse	ation Visible on Aeri ely Vegetated Conc	ave Surface	e (B8)			narks)			<u> </u>	osi-neave nummocks (D7)
☐ Inunda☐ Sparse Field Obs Surface W	ation Visible on Aeri ely Vegetated Conc ervations: ater Present?	ave Surface	(B8) No ⊠	Other (Exp):	narks)			<u> </u>	osi-neave nummocks (D7)
☐ Inunda☐ Sparse Field Obs Surface W Water Tab	ation Visible on Aeri ely Vegetated Conc ervations: later Present?	ave Surface Yes □ Yes ⊠	No 🖂	Depth (inches	:): :): <u>9"</u>	marks)	Wet	land Hyd		
☐ Inunda ☐ Sparse Field Obse Surface W Water Tab Saturation (includes of	ation Visible on Aericle Vegetated Concertations: atter Present? ale Present? Present? capillary fringe)	eave Surface Yes □ Yes ⊠ Yes ⊠	No 🖂 No 🗆	Depth (inches	o): o): <u>9"</u> o): <u>5"</u>				drolog	y Present? Yes ⊠ No □
☐ Inunda ☐ Sparse Field Obse Surface W Water Tab Saturation (includes of	ation Visible on Aericle Vegetated Concervations: Later Present? Lete Present? Present?	eave Surface Yes □ Yes ⊠ Yes ⊠	No 🖂 No 🗆	Depth (inches	o): o): <u>9"</u> o): <u>5"</u>				drolog	
☐ Inunda☐ Sparse Field Obs Surface W Water Tab Saturation (includes of Describe F	ation Visible on Aeri ely Vegetated Conc ervations: later Present? le Present? Present? capillary fringe) Recorded Data (stre	Yes ☐ Yes ☒ Yes ☒ Yes ☒ am gauge,	No 🖾 No 🗆 No 🗆	Depth (inches Depth (inches Depth (inches ing well, aerial p	:): :): <u>9"</u> :): <u>5"</u> bhotos, pr	evious ins			drolog	
☐ Inunda☐ Sparse Field Obs Surface W Water Tab Saturation (includes of Describe F	ation Visible on Aericle Vegetated Concertations: atter Present? ale Present? Present? capillary fringe)	Yes ☐ Yes ☒ Yes ☒ Yes ☒ am gauge,	No 🖾 No 🗆 No 🗆	Depth (inches Depth (inches Depth (inches ing well, aerial p	:): :): <u>9"</u> :): <u>5"</u> bhotos, pr	evious ins			drolog	
☐ Inunda☐ Sparse Field Obs Surface W Water Tab Saturation (includes of Describe F	ation Visible on Aeri ely Vegetated Conc ervations: later Present? le Present? Present? capillary fringe) Recorded Data (stre	Yes ☐ Yes ☒ Yes ☒ Yes ☒ am gauge,	No 🖾 No 🗆 No 🗆	Depth (inches Depth (inches Depth (inches ing well, aerial p	:): :): <u>9"</u> :): <u>5"</u> bhotos, pr	evious ins			drolog	
☐ Inunda☐ Sparse Field Obs Surface W Water Tab Saturation (includes of Describe F	ation Visible on Aeri ely Vegetated Conc ervations: later Present? le Present? Present? capillary fringe) Recorded Data (stre	Yes ☐ Yes ☒ Yes ☒ Yes ☒ am gauge,	No 🖾 No 🗆 No 🗆	Depth (inches Depth (inches Depth (inches ing well, aerial p	:): :): <u>9"</u> :): <u>5"</u> bhotos, pr	evious ins			drolog	

Project/Site: Bond Road/SR 305	(City/Count	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 6/2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 1-B
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.
Landform (hillslope, terrace, etc.): hillslope		Local reli	ef (concave,	, convex, none): sloping	Slope (%): <u>5%</u>
Subregion (LRR): MLRA 2	Lat:			_ Long:	Datum:
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%					
Are climatic / hydrologic conditions on the site typical for this					
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes⊠ No□
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes ☐ No ☒					
Hydric Soil Present? Yes ☐ No ☐			ne Sampled		- 57
Wetland Hydrology Present? Yes ☐ No ☒		with	iin a wetiar	nd? Yes □ No	
Remarks: Upland area on the east side of the stream flow vegetation – Use scientific names of plan		Wetland B	, wnich lies a	along the west edge of the	project site.
	Absolute	Dominan	t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 30' diameter) 1	% Cover	Species?	Status	Number of Dominant Spo That Are OBL, FACW, or	ecies
2				Total Number of Domina	nt
3				Species Across All Strata	
4				Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C	Cover	That Are OBL, FACW, or	
1. Rubus spectabilis	15%	Yes	FAC	Prevalence Index work	sheet:
2. <u>Oemleria cerasiformis</u>	5%	Yes	FACU	Total % Cover of:	Multiply by:
3					x 1 =
4					x 2 =
5				-	x 3 =
Herb Stratum (Plot size: 30 feet)	20%	= Total C	Cover	-	x 4 =
1. Polystichum munitum	50%	Yes	FACU	Column Totals:	x 5 = (A) (B)
2.				Column Totals.	(A) (B)
3.				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	n Indicators:
5				☐ Dominance Test is >	
6				Prevalence Index is	
7					ations ¹ (Provide supporting or on a separate sheet)
8				☐ Wetland Non-Vascul	
9					nytic Vegetation ¹ (Explain)
10					and wetland hydrology must
11				be present, unless distur	bed or problematic.
Woody Vine Stratum (Plot size:)	50%	= Fotal C	cover		
1. Rubus armeniacus	15%	Yes	FAC	Hydrophytic	
2				Vegetation Present? Yes	□ No ⊠
0/ Page Crayed in Harb Charter	15%	= Total C	Cover	103	🖂
% Bare Ground in Herb Stratum Remarks: Hydrophytic vegetation criterion is not met beca	usa there is	not greate	r than 500/	dominance by EAC species	3
	400 HICIE 15	not greate		addinination by 1 AO species	··

Depth	cription: (Descrit Matrix		lepth n	eeded to document the indicator or on the Redox Features	confirm	the absence of indicators.)
(inches)	Color (moist)	%	Cole	or (moist) % Type ¹ L	oc ²	Texture Remarks
0-3"	10YR 2/2	100%			<u>ı</u>	oam
3-16"	10YR 4/3	100%			(gr sa loam
			- —			
¹Type: C=C	oncentration, D=D	epletion, F	RM=Red	duced Matrix, CS=Covered or Coated S	Sand Gra	ins. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to	all LRF	Rs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox (S5)		☐ 2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
	stic (A3)			Loamy Mucky Mineral (F1) (except ML	_RA 1)	☐ Other (Explain in Remarks)
	en Sulfide (A4)	(4.4.4)		Loamy Gleyed Matrix (F2)		
•	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)		3 Indicators of hydrophytic vagatation and
	ark Surface (A12) ⁄lucky Mineral (S1)			Redox Dark Surface (F6) Depleted Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
	Bleyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
	Layer (if present)	:				amood diotalised of presidentation
	, ,					
,, <u> </u>	iches):					Hydric Soil Present? Yes ☐ No ☒
	,			ause of the high chroma of the soil prof	filo	,
rtomanto. Ti	io riyano con critor	1011 10 1101 1		rados of the ringri of merria of the con pro-		
HYDROLC	GY					
•	drology Indicator			I Hala a LN		
	cators (minimum c	t one requ	irea; ch	** **		Secondary Indicators (2 or more required)
	Water (A1)			Water-Stained Leaves (B9) (exce	pt MLRA	
_	ater Table (A2)			1, 2, 4A, and 4B)		4A, and 4B)
☐ Saturation	` '			Salt Crust (B11)		☐ Drainage Patterns (B10)
	larks (B1)			Aquatic Invertebrates (B13)		☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen Sulfide Odor (C1)	5 .	Saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized Rhizospheres along Livin	ng Roots	
•	at or Crust (B4)			Presence of Reduced Iron (C4)	-:1- (00)	Shallow Aquitard (D3)
	oosits (B5)			Recent Iron Reduction in Tilled Sc		FAC-Neutral Test (D5)
	Soil Cracks (B6)		(DZ)	Stunted or Stressed Plants (D1) (I	LRR A)	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeria / Vegetated Conca			☐ Other (Explain in Remarks)		☐ Frost-Heave Hummocks (D7)
☐ Sparsely		ive Sunace	; (DO)			
Surface Wa		Yes □	No 🖂	Depth (inches):		
Water Table			No ⊠	Depth (inches):	14/-41	ad Hudrala au Brasant2 - Vas 🖂 - Na 🖂
Saturation F (includes ca	resent? pillary fringe)	Yes 🗌	No ⊠	Depth (inches):	wetiai	nd Hydrology Present? Yes ☐ No ☒
		am gauge,	monito	ring well, aerial photos, previous inspec	ctions), if	available:
_						
Remarks: N	o hydrology preser	nt and no v	vetland	hydrology indicators.		

Project/Site: Bond Road/SR 305	(City/County	: Poulsbo,	Kitsap	Sampling Date: 11/2010 6-20	016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 2-B	
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		Local relie	f (concave,	convex, none): sloping	Slope (%): <u>5%</u>	
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:	
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%	slopes			NWI classificat	ion: <u>UPL</u>	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Yes ⊠	No □ (li	f no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes ⊠ No □	
Are Vegetation, Soil, or Hydrology natu			(If neede	ed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map			•		,	tc.
Lhudrashutia Vanatatian Brasanta Van Ma D						
Hydrophytic Vegetation Present? Yes ⊠ No ☐ Hydric Soil Present? Yes ☐ No ☑			e Sampled			
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No) 🛮	
Remarks: Upland area along stream that contains standing						out
lacks hydric soils and wetland hydrology indicators. The up	oland areas	around We	tland B hav	re not changed since 2010.		
VEGETATION – Use scientific names of plan	ts.					
	Absolute			Dominance Test works	heet:	
Tree Stratum (Plot size: 30' diameter) 1	% Cover			Number of Dominant Spe That Are OBL, FACW, or		
2				Total Number of Domina	nt	
3				Species Across All Strata	a: <u>4</u> (B)	
4				Percent of Dominant Spe		
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C	over	That Are OBL, FACW, or	r FAC: <u>75%</u> (A/B	3)
1. Rubus spectabilis	10%	Yes	FAC	Prevalence Index works	sheet:	
2				Total % Cover of:	Multiply by:	
3				OBL species	x 1 =	
4				FACW species		
5				*	x 3 =	
Herb Stratum (Plot size: 30' diameter)	10%	= Total C	over		x 4 =	
1. Polystichum munitum	35%	Yes	FACU		x 5 = (A) (B	٥١
2. Ranunculus repens	35%	Yes	FAC	Column Totals.	(A) (B	")
3. Tolmeia menziesii	20%	No	FAC	Prevalence Index :	= B/A =	
4. Athyrium filix-femina	10%	No	FAC	Hydrophytic Vegetation	n Indicators:	
5. Carex obnupta	5%	No	OBL	Dominance Test is >		
6				☐ Prevalence Index is		
7				☐ Morphological Adapta	ations ¹ (Provide supporting or on a separate sheet)	
8				☐ Wetland Non-Vascula		
9				☐ Problematic Hydroph	nytic Vegetation ¹ (Explain)	
10					and wetland hydrology must	
11		= Total C		be present, unless distur	bed or problematic.	
Woody Vine Stratum (Plot size:)	103 /6	= Total C	ovei			
Rubus armeniacus 2				Hydrophytic Vegetation		
	5%	= Total C		Present? Yes	⊠ No □	
% Bare Ground in Herb Stratum						
Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater that	an 50% don	ninance by FAC species.		

Profile Description: (Describe	to the de	pth needed to docu	ment the	indicator	or confirn	n the ab	sence	of indicators.)		
Depth Matrix			ox Feature			-				
(inches) Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Textur</u>	re	Remarks		
<u>0-16" </u>	90%	10 YR 4/4	10%	D	<u>M</u>	sandy	loam	faint mottles		
						-				
								<u> </u>		
			_							
¹ Type: C=Concentration, D=De					ed Sand G			cation: PL=Pore Lining, M=Matrix.		
Hydric Soil Indicators: (Appli	cable to al	I LRRs, unless other	erwise not	ed.)		In	dicate	ors for Problematic Hydric Soils ³ :		
☐ Histosol (A1)		☐ Sandy Redox ((S5)] 2 cn	n Muck (A10)		
Histic Epipedon (A2)		Stripped Matrix	, ,					Parent Material (TF2)		
☐ Black Histic (A3)		Loamy Mucky			MLRA 1)] Othe	er (Explain in Remarks)		
☐ Hydrogen Sulfide (A4)		Loamy Gleyed	•)						
☐ Depleted Below Dark Surface	e (A11)	☐ Depleted Matri				3.				
☐ Thick Dark Surface (A12)		Redox Dark Su	, ,			٩lı		ors of hydrophytic vegetation and		
☐ Sandy Mucky Mineral (S1)		☐ Depleted Dark	,	7)				and hydrology must be present,		
Sandy Gleyed Matrix (S4)		☐ Redox Depres	sions (F8)				unles	ss disturbed or problematic.		
Restrictive Layer (if present):										
Type:		-								
Depth (inches):		-				Hydr	ic Soil	Present? Yes ☐ No ⊠		
Remarks: The soil matrix chrom	a is too hig	h even with mottles	so the prof	ile meets	none of the	e listed h	ydric s	soil indicators.		
HYDROLOGY										
Wetland Hydrology Indicators	:									
Primary Indicators (minimum of	one require	ed; check all that app	oly)				Seco	ndary Indicators (2 or more required)		
Surface Water (A1)		☐ Water-Sta	ained Leav	es (B9) (e	cept MLF	RA	\square v	/ater-Stained Leaves (B9) (MLRA 1, 2,		
☐ High Water Table (A2)			A, and 4B		•			4A, and 4B)		
☐ Saturation (A3)		☐ Salt Crus		•			Πр	rainage Patterns (B10)		
☐ Water Marks (B1)		☐ Aquatic Ir	, ,	s (B13)				ry-Season Water Table (C2)		
☐ Sediment Deposits (B2)		☐ Hydrogen		. ,				aturation Visible on Aerial Imagery (C9)		
☐ Drift Deposits (B3)			Rhizosphe		Living Poo	te (C3)		eomorphic Position (D2)		
			of Reduce	_	-	13 (00)		hallow Aquitard (D3)		
-						• • • • • • • • • • • • • • • • • • • •				
☐ Iron Deposits (B5)			on Reduction		•	•		AC-Neutral Test (D5)		
☐ Surface Soil Cracks (B6)	l (D		r Stressed		I) (LKK A))		aised Ant Mounds (D6) (LRR A)		
Inundation Visible on Aerial			plain in Re	marks)			шг	rost-Heave Hummocks (D7)		
☐ Sparsely Vegetated Concav	e Surrace i	B8)								
= 1 1 1 A 1	c Garrage (•								
Field Observations:										
		o ☐ Depth (inche								
Surface Water Present?	Yes⊠ N	o ☐ Depth (inche								
Surface Water Present? Water Table Present? Saturation Present?	Yes⊠ N Yes□ N	,	es):		Wetl	and Hyd	drolog	y Present? Yes □ No ⊠		
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes ⊠ N Yes □ N Yes □ N	o Depth (inche	es):					y Present? Yes □ No ⊠		
Surface Water Present? Water Table Present? Saturation Present?	Yes ⊠ N Yes □ N Yes □ N	o Depth (inche	es):					y Present? Yes □ No ⊠		
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes ⊠ N Yes □ N Yes □ N	o Depth (inche	es):					y Present? Yes □ No ⊠		
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: Hydrology present as	Yes ⊠ N Yes □ N Yes □ N n gauge, m	Depth (inches o Depth (inches o Depth (inches onitoring well, aeria	es): es): I photos, pi	revious inseam floodi	spections),	if availa	ble:	y Present? Yes □ No ☑ months. Water not present during April		
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream	Yes ⊠ N Yes □ N Yes □ N n gauge, m	Depth (inches o Depth (inches o Depth (inches onitoring well, aeria	es): es): I photos, pi	revious inseam floodi	spections),	if availa	ble:			
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: Hydrology present as	Yes ⊠ N Yes □ N Yes □ N n gauge, m	Depth (inches o Depth (inches o Depth (inches onitoring well, aeria	es): es): I photos, pi	revious inseam floodi	spections),	if availa	ble:			

Project/Site: Bond Road/SR 305		City/County	y: <u>Poulsbo,</u>	Kitsap	Sampling Date: 11-2010	6-2016		
Applicant/Owner: Edward Rose and Sons				State: WA	_ Sampling Point: TH 3-B			
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.			
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): concave	Slope (%):	5%		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:			
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%								
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-				ent? Yes⊠ No□			
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map				•	ŕ	s, etc.		
Hydrophytic Vegetation Present? Yes ☐ No ☒								
Hydric Soil Present? Yes ☐ No ☒			e Sampled		- 57			
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No	, M			
Remarks: Upland on the east side of Wetland B and Test I	Hole 2-B.	"						
VEGETATION – Use scientific names of plan	ts.							
	Absolute			Dominance Test works	heet:	-		
Tree Stratum (Plot size: 30' diameter) 1	% Cover			Number of Dominant Spe That Are OBL, FACW, or		(A)		
2				Total Number of Domina	nt			
3				Species Across All Strata		(B)		
4				Percent of Dominant Spe	ecies			
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total C	over	That Are OBL, FACW, or		(A/B)		
1. Corylus cornuta	10%	Yes	FACU	Prevalence Index work	sheet:			
2. Rubus spectabilis		Yes		Total % Cover of:	Multiply by:	_		
3. Vaccinium parvifolium		Yes		OBL species	x 1 =	_		
4. Rubus parviflorus	5%	Yes	FACU	FACW species	x 2 =	_		
5				FAC species	x 3 =	-		
Hart Otrature (Distrators 00 (act)	25%	= Total C	over	FACU species x 4 =				
Herb Stratum (Plot size: 30 feet)	F00/	Vaa	FACIL	UPL species				
Polystichum munitum Rubus ursinus		Yes	FACU FACU	Column Totals:	(A)	_ (B)		
2. Rubus ursinus 3				Prevalence Index :	= B/A =			
4				Hydrophytic Vegetation				
5				☐ Dominance Test is >	50%			
6.				☐ Prevalence Index is	3.0 ¹			
7				☐ Morphological Adapt		ng		
8				data in Remarks Wetland Non-Vascul	or on a separate sheet)			
9				☐ Problematic Hydroph		.)		
10				¹ Indicators of hydric soil	, , ,	,		
11				be present, unless distur		iust		
Woody Vine Stratum (Plat size:	75%	= Total C	over					
Woody Vine Stratum (Plot size:) 1. Rubus armeniacus	100/	Yes	EAC	Hydrophytic				
2			TAC	Vegetation				
	10%	= Total C	over	Present? Yes	□ No ⊠			
% Bare Ground in Herb Stratum 25								
Remarks: The hydrophytic vegetation criterion is not met b	ecause the	e is less th	an 50% doi	minance by FAC species.				

Depth	cription: (Descrit Matrix		eptn n	Redox Feature	·s		n the absence of indicators.)
(inches)	Color (moist)	%	Cold	or (moist) %	Type ¹ Lo	oc ²	<u>Texture</u> <u>Remarks</u>
0-16"	10YR 4/3	100%					gr sa lo
					<u> </u>		
	-						
					<u> </u>		
	-						·
				duced Matrix, CS=Covere Rs, unless otherwise not		and Gra	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
-		iicabie to			.eu.j		-
☐ Histosol	oipedon (A2)			Sandy Redox (S5) Stripped Matrix (S6)			☐ 2 cm Muck (A10) ☐ Red Parent Material (TF2)
	istic (A3)			Loamy Mucky Mineral (F	1) (excent MI F	RΔ1)	Other (Explain in Remarks)
	en Sulfide (A4)			Loamy Gleyed Matrix (F2		1)	- Other (Explain in Normano)
	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)	,		
	ark Surface (A12)	,		Redox Dark Surface (F6)			³ Indicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark Surface (F			wetland hydrology must be present,
☐ Sandy C	Bleyed Matrix (S4)			Redox Depressions (F8)			unless disturbed or problematic.
Restrictive	Layer (if present)	:					
Type:			_				
Depth (ir	nches):						Hydric Soil Present? Yes ☐ No ☒
HYDROLO)GY						
Wetland Hy	drology Indicator	's:					
Primary Indi	cators (minimum c	f one requi	red; ch	eck all that apply)			Secondary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-Stained Leave	es (B9) (excep	t MLR	Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ater Table (A2)			1, 2, 4A, and 4B)		4A, and 4B)
☐ Saturati	on (A3)			☐ Salt Crust (B11)			☐ Drainage Patterns (B10)
☐ Water M	larks (B1)			☐ Aquatic Invertebrate	s (B13)		☐ Dry-Season Water Table (C2)
☐ Sedime	nt Deposits (B2)			☐ Hydrogen Sulfide Od	dor (C1)		☐ Saturation Visible on Aerial Imagery (C9)
☐ Drift De	posits (B3)			☐ Oxidized Rhizosphe	res along Livin	g Root	ts (C3) Geomorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence of Reduce	d Iron (C4)		☐ Shallow Aquitard (D3)
☐ Iron Dep	oosits (B5)			☐ Recent Iron Reduction	on in Tilled Soi	ils (C6)	FAC-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted or Stressed	Plants (D1) (L	RR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Inundati	on Visible on Aeria	ıl Imagery (B7)	☐ Other (Explain in Re	marks)		☐ Frost-Heave Hummocks (D7)
☐ Sparsely	y Vegetated Conca	ve Surface	(B8)				
Field Obse	rvations:						
Surface Wa	ter Present?	Yes 🗌	No 🛛	Depth (inches):			
Water Table	Present?	Yes 🗌	No 🛛	Depth (inches):			
Saturation F		Yes □	No 🛛	Depth (inches):		Wetla	and Hydrology Present? Yes ☐ No ⊠
	pillary fringe) ecorded Data (strea	am dalide	monito	ring well, aerial photos, pi	revious inspect	tions) i	if available:
Describe IX	corded Data (Street	am gauge,	monito	ring well, derial priotos, pi	cvious inspect	110113), 1	ii availabic.
Remarks: N	o hydrology or indi	cators of w	etland	hydrology present.			

Project/Site: Bond Road/SR 305		City/Coun	ty: <u>Poulsbo,</u>	Kitsap	_ Sampling Date:11	-2010 6-2016
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 4-B	
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 1</u>	1, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope		_ Local reli	ef (concave,	, convex, none): concave	Slope	e (%): <u>5%</u>
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:	:
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6						
Are climatic / hydrologic conditions on the site typical for th						
Are Vegetation, Soil, or Hydrology sig	-			ormal Circumstances" pre		οП
Are Vegetation, Soil, or Hydrology nat				ed, explain any answers	_	_
SUMMARY OF FINDINGS – Attach site map						tures. etc.
			<u> </u>	•	<u> </u>	
Hydrophytic Vegetation Present? Yes ⊠ No ☐		ls t	he Sampled	Area		
Hydric Soil Present? Yes ⊠ No ☐ Wetland Hydrology Present? Yes ⊠ No ☐		witl	hin a Wetlar	nd? Yes⊠ !	No 🗌	
Remarks: Wetland B at south end on a terrace just above		but at the l	base of the t	rough/shallow ravine. Th	e site visit conducte	d on 6-17-
2016 revealed that Wetland B remains as it was delineate				S		
VEGETATION – Use scientific names of plan	nte					
VEGETATION OSC SCIENTING Harnes of plan		Dominan	t Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30' diameter)	% Cover	Species'	? Status	Number of Dominant S	pecies	
1. Thuja plicata				That Are OBL, FACW,	or FAC: 4	(A)
2				Total Number of Domir		
3				Species Across All Stra	ata: <u>5</u>	(B)
4		= Total (Percent of Dominant S		(A /D)
Sapling/Shrub Stratum (Plot size: 30' diameter)	20 / 0	- Total C	Joven	That Are OBL, FACW,	or FAC: 80%	(A/B)
Rubus spectabilis	5%	Yes	FAC	Prevalence Index wor		
2. <u>Sambucus racemoa</u>	5%	Yes	FACU		Multiply I	-
3				OBL species		
4				FACW species		
5		= Total (FAC species		
Herb Stratum (Plot size: 30 feet)	1076	= rotar C	Jovei		x5=	
Athyrium filix femina	25%	Yes	FAC	Column Totals:		(B)
2. Tolmeia menziesii	15%	Yes	FAC			
3. Lysichiton americanum		No	OBL		x = B/A =	
4. Equisetum arvense		No	FAC	Hydrophytic Vegetation		
5. Polystichum munitum				☑ Dominance Test is☐ Prevalence Index is		
6				_	s 3.0 ptations¹ (Provide su	inporting
7					s or on a separate s	
8 9				☐ Wetland Non-Vasc	ular Plants ¹	
10				☐ Problematic Hydrop	, , ,	. ,
11.				¹ Indicators of hydric so be present, unless dist		
		= Total (Cover	be present, unless dist	anded of problematic	,.
Woody Vine Stratum (Plot size:)						
1				Hydrophytic Vegetation		
2		= Total (Cover		es 🛛 No 🗌	
% Bare Ground in Herb Stratum 40		= Total C	Joven			
Remarks: The hydrophytic vegetation criterion was met b	ecause there	is greater	r than 50% d	lominance by FAC specie	S.	

Depth	Matrix		- 		ox Feature		1 2	_		
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	<u>Textur</u>	<u>e</u>	Remarks
<u>0-16"</u>	10YR 2/1	100%			_			sa loan	1	
					_					·
								-		
			- —							
¹ Type: C=C	oncentration, D=De	anletion P	M-Pad	uced Matrix C	S-Covere	d or Coate	nd Sand G	raine	² l o	ocation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl						a Sand O			ors for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (,				m Muck (A10)
	pipedon (A2)			Stripped Matrix						d Parent Material (TF2)
☐ Black Hi				 .oamy Mucky N	, ,) (except	MLRA 1)			er (Explain in Remarks)
☐ Hydroge	n Sulfide (A4)		□ L	oamy Gleyed	Matrix (F2)				
	l Below Dark Surfa	ce (A11)		Depleted Matrix	• •					
	rk Surface (A12)			Redox Dark Su	, ,			³ lr		ors of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark		7)				and hydrology must be present,
	leyed Matrix (S4)		Ц !	Redox Depress	sions (F8)			1	unle	ess disturbed or problematic.
	Layer (if present):									
								l		"
	ches):		_					Hydri	c Soi	il Present? Yes ⊠ No □
Remarks: Lo	w chroma for soil r	matrix chro	oma and	I meets hydric	soil indicat	or A12.				
HYDROLO	GY									
	drology Indicators	s:								
	cators (minimum of		ired: che	eck all that ann	lv)				Seco	ondary Indicators (2 or more required)
☐ Surface		r ono roqui	irou, oric	☐ Water-Sta		s (R0) (a	vcent MI F			Vater-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)				A, and 4B		KCEPT WILI	\A	υ ν	4A, and 4B)
				☐ Salt Crust		,				Orainage Patterns (B10)
☐ Water M	` '			Aquatic In	` '	s (B13)			_	Ory-Season Water Table (C2)
	t Deposits (B2)			☐ Hydrogen						Saturation Visible on Aerial Imagery (C9)
	oosits (B3)			Oxidized F			Living Roc	ots (C3)		Geomorphic Position (D2)
	t or Crust (B4)			☐ Presence		-	_	10 (00)		Shallow Aquitard (D3)
	osits (B5)			☐ Recent Iro				5)		FAC-Neutral Test (D5)
	Soil Cracks (B6)			☐ Stunted or			`	,		Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	l Imagery ((B7)	Other (Exp			., (=,	,		Frost-Heave Hummocks (D7)
_	Vegetated Concar	0,	` '		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	marko,			ш.	Tool Floave Flammoone (27)
Field Obser			- ()							
Surface Wat		Yes □	No 🗌	Depth (inche	s).					
Water Table			No 🗆	Depth (inche	<i>,</i> —					
							Wot	and Hvd	Iroloc	ry Prosont? Vos ⊠ No □
Saturation P (includes ca		Yes ⊠	No 🗌	Depth (inche	o). <u>10 SUM</u>	<u></u>	weti	ана пус	. 0106	gy Present? Yes ⊠ No □
	corded Data (strea	m gauge,	monitor	ing well, aerial	photos, pr	evious ins	pections),	if availal	ole:	
Remarks: W	etland hydrology p	resent dur	ing field	visit with evide	ence of str	eam flood	ing indicat	ed by su	rface	scouring and/or bare surface in
understory o	f the forest.		-				-	-		-

Project/Site: Bond Road/SR 305	(City/County	/: Poulsbo,	sbo, Kitsap Sampling Date: 11/				
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 5-B			
Investigator(s): J. Bartlett			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.			
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): concave	Slope (%)): <u>5%</u>		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:	Datum:		
Soil Map Unit Name: 39 Poulsbo gravelly sandy loam, 0-6%								
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Ves⊠ No□			
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map						es, etc.		
Hydrophytic Vegetation Present? Yes ☐ No ☐ Hydric Soil Present? Yes ☐ No ☐ Yes ☐ No ☐ N		Is th	e Sampled	l Area				
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No) 🛮			
Remarks: Upland on slope of shallow trough above the ter	race wetland	d along eas	st side of st	ream.				
		Ü						
VEGETATION – Use scientific names of plant	ts.							
		Dominant		Dominance Test works	heet:			
Tree Stratum (Plot size: 30' diameter)	% Cover			Number of Dominant Spe		(4)		
1. Thuja plicata				That Are OBL, FACW, or	FAC: <u>3</u>	(A)		
2. Alnus rubra				Total Number of Domina		(D)		
3				Species Across All Strata		(B)		
7.		= Total C		Percent of Dominant Spe		(A (D)		
Sapling/Shrub Stratum (Plot size: 30' diameter)	1070	- 10tai 0	OVCI	That Are OBL, FACW, or	FAC: <u>50</u>	(A/B)		
1. Rubus spectabilis	10%	Yes	FAC	Prevalence Index works	sheet:			
2. Ilex opaca	10%	Yes	FACU	Total % Cover of:	Multiply by:			
3. Oemleria cerasiformis	<u>5%</u>	No	<u>FACU</u>	OBL species				
4. Corylus cornuta	5%	No	FACU	FACW species				
5				FAC species				
Herb Stratum (Plot size: 30 feet)	30%	= Total C	over	FACU species x 4 = UPL species x 5 =				
1. Polystichum munitum	50%	Yes	FACU	Column Totals:				
2. Rubus ursinus	20%	Yes	FACU	Column Totals:	(A)	(B)		
3. Athyrium filix-femina	5%	No	FAC	Prevalence Index =	= B/A =			
4				Hydrophytic Vegetation	Indicators:			
5				☐ Dominance Test is >	50%			
6				Prevalence Index is				
7				☐ Morphological Adapta	ations' (Provide suppor or on a separate sheet			
8				☐ Wetland Non-Vascula	•	,		
9					ytic Vegetation ¹ (Expla	in)		
10				¹ Indicators of hydric soil a	and wetland hydrology	must		
11				be present, unless distur	bed or problematic.			
Woody Vine Stratum (Plot size:)	<u>75%</u>	= Total C	over					
1				Hydrophytic				
2				Vegetation	□ No ⊠			
		= Total C		Present? Yes	□ No ⊠			
% Bare Ground in Herb Stratum 25	0001122		otor the	00/ dominana by 540, 54	CW and ODL			
Remarks: The hydrophytic vegetation criterion is not met b	ecause ther	e is not gre	eater than 5	10% dominance by FAC, FA	tow, and OBL species			

Depth	cription: (Descrit Matrix		epth n	eeded to document the indicator or Redox Features	confirm	the absence of indicators.)
(inches)	Color (moist)	%	Cole	or (moist) % Type ¹ L	_oc²	Texture Remarks
0-3"	10YR 2/2	100%				loam
3-16"	10YR 4/4	100%				gr sa lo
						3
	-					
	<u></u>					
¹Type: C=C	concentration, D=D	epletion, F	M=Red	duced Matrix, CS=Covered or Coated S	Sand Gra	ains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to	all LRF	Rs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox (S5)		☐ 2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)		Red Parent Material (TF2)
	stic (A3)			Loamy Mucky Mineral (F1) (except MI	LRA 1)	☐ Other (Explain in Remarks)
	en Sulfide (A4)	(4.4.4)		Loamy Gleyed Matrix (F2)		
•	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)		3Indicators of hydrophytic vegetation and
	ark Surface (A12) ⁄lucky Mineral (S1)			Redox Dark Surface (F6) Depleted Dark Surface (F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
	Bleyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
	Layer (if present)	:		reack Depressions (i s)		arricos distarsos or prosiornatio.
	., ()					
,, <u> </u>	nches):					Hydric Soil Present? Yes ☐ No ⊠
	, <u> </u>			cause of the high chroma of the soil pro	ofilo	,
rtomanto. Ti	no riyano con critor	1011 10 11011		ados of the high emorna of the con pro		
HYDROLO	GY					
	drology Indicator					
	cators (minimum c	f one requ	ired; ch	****		Secondary Indicators (2 or more required)
	Water (A1)			☐ Water-Stained Leaves (B9) (exce	ept MLR	
_	ater Table (A2)			1, 2, 4A, and 4B)		4A, and 4B)
Saturation	` '			Salt Crust (B11)		Drainage Patterns (B10)
	larks (B1)			Aquatic Invertebrates (B13)		Dry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen Sulfide Odor (C1)		Saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized Rhizospheres along Livi	ing Roots	
•	at or Crust (B4)			Presence of Reduced Iron (C4)		Shallow Aquitard (D3)
	oosits (B5)			Recent Iron Reduction in Tilled S		
	Soil Cracks (B6)			Stunted or Stressed Plants (D1) ((LRR A)	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aeria		. ,	☐ Other (Explain in Remarks)		☐ Frost-Heave Hummocks (D7)
	y Vegetated Conca	ve Surface	e (B8)		1	
Field Obser						
Surface Wa			No 🖂	Depth (inches):		
Water Table	Present?	Yes 🗌	No 🛛	Depth (inches):		
Saturation F	Present? pillary fringe)	Yes 🗌	No 🛚	Depth (inches):	Wetla	nd Hydrology Present? Yes ☐ No ⊠
		am gauge,	monito	ring well, aerial photos, previous inspe	ctions), i	f available:
Remarks: N	o hydrology and no	o evidence	of wetl	and hydrology.		

Project/Site: Bond Road/SR 305		City/Cour	nty: <u>Poulsbo,</u>	Kitsap	Sampling Date:6-17-	·16
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 1-C	
Investigator(s): <u>J. Bartlett</u>			_ Section, To	ownship, Range: <u>S 10 & 1</u>	1, T 26 N, R 1E.	
Landform (hillslope, terrace, etc.): hillslope						
Subregion (LRR): MLRA 2					-	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30						
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pre		1
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers i		•
SUMMARY OF FINDINGS – Attach site map						res, etc.
			<u> </u>	<u>, </u>	<u> </u>	
Hydrophytic Vegetation Present? Yes ⊠ No ☐		Is t	the Sampled	l Area		
Hydric Soil Present? Yes ⊠ No ☐ Wetland Hydrology Present? Yes ⊠ No ☐		wit	thin a Wetlar	nd? Yes⊠ N	10 🗆	
Remarks: Middle of Wetland C, which is a small sloping, s	crub/shrub s	system. S	Slopes down	to grass lined swale along	Bond Road (SR 307).	. the
boundary of Wetland C was redelineated in June 2016, wh					,	
VEGETATION – Use scientific names of plan	ts.					
	Absolute	Dominar	nt Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 30 feet) 1			Status	Number of Dominant Sp That Are OBL, FACW, of		_ (A)
2				Total Number of Domin	ant	
3				Species Across All Stra	ta: <u>1</u>	_ (B)
4				Percent of Dominant Sp	pecies	
Sapling/Shrub Stratum (Plot size: 30' diameter)		= Total	Cover	That Are OBL, FACW,	or FAC: <u>100%</u>	_ (A/B)
1. Rubus spectabilis	90%	Yes	FAC	Prevalence Index wor	ksheet:	
2. Rubus armeniacus			FAC	Total % Cover of:	Multiply by:	
3				OBL species	x 1 =	
4				FACW species	x 2 =	
5				FAC species		
Harb Christian (District 20 feet)	95%	= Total	Cover	FACU species		
Herb Stratum (Plot size: 30 feet)					x 5 =	
1 2				Column Totals:	(A)	(B)
3.				Prevalence Index	= B/A =	_
4				Hydrophytic Vegetation	n Indicators:	
5.				□ Dominance Test is:	>50%	
6.				☐ Prevalence Index is	3.0 ¹	
7					otations ¹ (Provide supperson on a separate sheet	
8				☐ Wetland Non-Vascu	ılar Plants ¹	
9 10				☐ Problematic Hydrop	hytic Vegetation ¹ (Exp	lain)
11.				¹ Indicators of hydric soi		y must
	50%		Cover	be present, unless distu	irbed or problematic.	
Woody Vine Stratum (Plot size:)						
1				Hydrophytic		
2				Vegetation Present? Yes	s⊠ No□	
% Bare Ground in Herb Stratum 50		= Total	Cover			
Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater t	han 50% don	ninance by FAC species.	The wetland vegetation	on .
community remains as it was delineated in 2011.				, , ,	J am a	

_					he absence of indicators.)
Depth Colo	Matrix or (moist)	% Col	Redox Features or (moist) % Type ¹	Loc ² T	Texture Remarks
			<u> </u>		
<u>0-16" 10Y</u>	R 2/1 1	100%		Sc	<u>a lo</u>
					
				 -	
			duced Matrix, CS=Covered or Coated	Sand Grain	0 .
-	ators: (Applical		Rs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	44.5		Sandy Redox (S5)		2 cm Muck (A10)
Histic Epipedo		님	Stripped Matrix (S6)	U D A 4\	Red Parent Material (TF2)
Black Histic (A	•		Loamy Mucky Mineral (F1) (except N	ILRA 1)	Other (Explain in Remarks)
☐ Hydrogen Sulf	iide (A4) w Dark Surface (Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		
☐ Depleted Belo	•	, —	Redox Dark Surface (F6)		³ Indicators of hydrophytic vegetation and
☐ Sandy Mucky	, ,	H	Depleted Dark Surface (F7)		wetland hydrology must be present,
☐ Sandy Gleyed			Redox Depressions (F8)		unless disturbed or problematic.
Restrictive Layer	(if present):				·
Type:					
Depth (inches)	:				Hydric Soil Present? Yes ⊠ No □
Remarks: The hyd	dric soil criterion i	s met becaus	se the soil profile exhibits characteristic	cs of hydric	soil indicator A12.
ĺ			·	,	
HYDROLOGY					
HYDROLOGY Wetland Hydrolo	gy Indicators:				
Wetland Hydrolo		e required; ch	neck all that apply)		Secondary Indicators (2 or more required)
Wetland Hydrolo	(minimum of one	e required; ch	neck all that apply) Water-Stained Leaves (B9) (exc	ept MLRA	
Wetland Hydrolo Primary Indicators	s (minimum of one r (A1)	e required; ch		ept MLRA	
Wetland Hydrolo Primary Indicators ☐ Surface Water	s (minimum of one r (A1) able (A2)	e required; ch	☐ Water-Stained Leaves (B9) (exc	ept MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrolo Primary Indicators ☐ Surface Water ☐ High Water Ta	s (minimum of one r (A1) able (A2)	e required; ch	 □ Water-Stained Leaves (B9) (exc 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) 	ept MLRA	 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2)
Wetland Hydrolo Primary Indicators ☐ Surface Water ☐ High Water Ta ☐ Saturation (A3	s (minimum of one r (A1) able (A2) B)	e required; ch	☐ Water-Stained Leaves (B9) (exc 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	ept MLRA	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10)
Wetland Hydrolo Primary Indicators □ Surface Water □ High Water Ta □ Saturation (A3 □ Water Marks (s (minimum of one r (A1) able (A2) B1) B1) posits (B2)	e required; ch	Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrolo Primary Indicators □ Surface Water □ High Water Ta □ Saturation (A3 □ Water Marks (□ Sediment Dep	s (minimum of one r (A1) able (A2) 3) B1) posits (B2) (B3)	e required; ch	 Water-Stained Leaves (B9) (exc 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) 		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrolo Primary Indicators ☐ Surface Water ☐ High Water Ta ☐ Saturation (A3 ☐ Water Marks (☐ Sediment Dep ☐ Drift Deposits ☐ Algal Mat or C☐ ☐ Iron Deposits	s (minimum of one r (A1) able (A2) B1) posits (B2) (B3) crust (B4) (B5)	e required; ch	Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2)
Wetland Hydrolo Primary Indicators ☐ Surface Water ☐ High Water Ta ☐ Saturation (A3 ☐ Water Marks (☐ Sediment Dep ☐ Drift Deposits ☐ Algal Mat or C☐ ☐ Iron Deposits ☐ Surface Soil C☐	c (minimum of one r (A1) able (A2) B) B1) sosits (B2) (B3) crust (B4) (B5) cracks (B6)		Water-Stained Leaves (B9) (exc 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Live Presence of Reduced Iron (C4)	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	c (minimum of one r (A1) able (A2) B1) posits (B2) (B3) crust (B4) (B5) cracks (B6) sible on Aerial Image	agery (B7)	Water-Stained Leaves (B9) (exc 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Linder Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	c (minimum of one r (A1) able (A2) B) B1) sosits (B2) (B3) crust (B4) (B5) cracks (B6)	agery (B7)	Water-Stained Leaves (B9) (excession of the state o	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis	c (minimum of one of (A1) able (A2) B1) B1) cosits (B2) (B3) crust (B4) (B5) cracks (B6) cible on Aerial Imagetated Concave S	agery (B7) Surface (B8)	Water-Stained Leaves (B9) (excession of the state o	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators ☐ Surface Water ☐ High Water Ta ☐ Saturation (A3 ☐ Water Marks (☐ Sediment Dep ☐ Drift Deposits ☐ Algal Mat or C☐ Iron Deposits ☐ Surface Soil C☐ Inundation Vis ☐ Sparsely Vege	s (minimum of one r (A1) able (A2) B1) B1) posits (B2) (B3) crust (B4) (B5) cracks (B6) sible on Aerial Imagetated Concave Sins:	agery (B7)	Water-Stained Leaves (B9) (excession of the state o	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege	c (minimum of one of (A1) able (A2) B1) posits (B2) (B3) crust (B4) (B5) cracks (B6) cible on Aerial Imagetated Concave September 1	agery (B7) Surface (B8)	Water-Stained Leaves (B9) (excession 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Line Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1) Other (Explain in Remarks)	ving Roots (□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Presentation Presentation	c (minimum of one of (A1) (A2) (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	agery (B7) Surface (B8)	Water-Stained Leaves (B9) (excession 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Limits of Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1) Other (Explain in Remarks) Depth (inches):	ving Roots (Soils (C6) (LRR A)	□ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) (C3) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Presentation Presentation Presentation (Includes capillary)	c (minimum of one of (A1) cable (A2) dable (A2) dable (A2) dable (A2) dable (A2) dable (A2) dable (B3) dable (B3) dable (B4) dable (B5) dable on Aerial Imperated Concave Series: desent? dable (B6) dable (B6) dable (B6) dable (B6) dable (B7) d	agery (B7) Surface (B8) S □ No □ S □ No □ S □ No □	Water-Stained Leaves (B9) (excession 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Limits of Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Signature of Stunted or Stressed Plants (D1) Other (Explain in Remarks) Depth (inches): Depth (inches): surface	ving Roots (Soils (C6) (LRR A) Wetland	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes ☑ No ☐
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Presentation Presentation Presentation (Includes capillary)	c (minimum of one of (A1) cable (A2) dable (A2) dable (A2) dable (A2) dable (A2) dable (A2) dable (B3) dable (B3) dable (B4) dable (B5) dable on Aerial Imperated Concave Series: desent? dable (B6) dable (B6) dable (B6) dable (B6) dable (B7) d	agery (B7) Surface (B8) S □ No □ S □ No □ S □ No □	Water-Stained Leaves (B9) (excessed 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liver Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Stunted or Stressed Plants (D1) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): 10"	ving Roots (Soils (C6) (LRR A) Wetland	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes ☑ No ☐
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Presenting Saturation Presenting Includes capillary Describe Recorde	c (minimum of one r (A1) able (A2) b) B1) bosits (B2) (B3) crust (B4) (B5) cracks (B6) cible on Aerial Imagetated Concave Series esent? Yes ent? Yes fringe) d Data (stream g	agery (B7) Surface (B8) S □ No □ S □ No □ S □ No □ Hauge, monito	Water-Stained Leaves (B9) (excession of the content	wing Roots (Soils (C6) (LRR A) Wetlander	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes ☑ No ☐
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Presenting Saturation Presenting Includes capillary Describe Recorde	c (minimum of one r (A1) able (A2) b) B1) bosits (B2) (B3) crust (B4) (B5) cracks (B6) cible on Aerial Imagetated Concave Seated Concave Seat	agery (B7) Surface (B8) S □ No □ S □ No □ S □ No □ Hauge, monito	Water-Stained Leaves (B9) (excession of the content	wing Roots (Soils (C6) (LRR A) Wetlander	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes ☑ No ☐
Wetland Hydrolo Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Surface Soil C Inundation Vis Sparsely Vege Field Observation Surface Water Present (includes capillary Describe Recorde	c (minimum of one r (A1) able (A2) b) B1) bosits (B2) (B3) crust (B4) (B5) cracks (B6) cible on Aerial Imagetated Concave Seated Concave Seat	agery (B7) Surface (B8) S □ No □ S □ No □ S □ No □ Hauge, monito	Water-Stained Leaves (B9) (excession of the content	wing Roots (Soils (C6) (LRR A) Wetlander	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) d Hydrology Present? Yes ☑ No ☐

Project/Site: Bond Road/SR 305	roject/Site: Bond Road/SR 305 City/County: Poulst							
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 2-C			
Investigator(s): <u>J. Bartlett</u>								
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): undulating	Slope (%): <u>5</u>	5%		
Subregion (LRR): MLRA 2						Datum:		
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30								
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" pres	ent? Yes⊠ No □			
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
						-4-		
SUMMARY OF FINDINGS – Attach site map	snowing	sampiin	g point i	ocations, transects,	important features,	, etc.		
Hydrophytic Vegetation Present? Yes ⊠ No □		le th	e Sampled	I Area				
Hydric Soil Present? Yes ☐ No ☒			-	nd? Yes ☐ No	ı ⊠			
Wetland Hydrology Present? Yes ☐ No ☒					_			
Remarks: Upland area south of Wetland C. Area is disturt during the 6-17-2016 field verification, it appeared to rema					this area was examined			
during the 6 17 2010 field verification, it appeared to femal	iii as it iiaa t	admig the 2	2010 001110	ation.				
VECETATION . Her rejensistic names of plant								
VEGETATION – Use scientific names of plan		<u> </u>	1 " .					
Tree Stratum (Plot size: 30 feet)	Absolute <u>% Cover</u>			Dominance Test works				
1. Alnus rubra				Number of Dominant Spe That Are OBL, FACW, or	r FAC: <u>3</u> (/	(A)		
2				Total Number of Domina	nt			
3				Species Across All Strata		3)		
4				Percent of Dominant Spe	aries			
Sanling/Shrub Stratum (Dlat size: 20' diameter)	5%	= Total C	over		r FAC: <u>100</u> (A	4/B)		
Sapling/Shrub Stratum (Plot size: 30' diameter) 1. Rubus armeniacus	80%	Vas	FΔC	Prevalence Index works	sheet:			
Number a cerasiformis Oemleria cerasiformis					Multiply by:			
3				OBL species				
4.				FACW species				
5				FAC species	x 3 =			
		= Total C		FACU species x 4 =				
Herb Stratum (Plot size: 30 feet)	100/	Voo	EACW.	UPL species				
Phalaris arundinacea	10%			Column Totals:	(A)	(B)		
2 3				Prevalence Index :	= B/A =			
4				Hydrophytic Vegetation				
5.				□ Dominance Test is > 1	50%			
6				☐ Prevalence Index is	3.0 ¹			
7					ations ¹ (Provide supporting	ıg		
8				□ Wetland Non-Vascul	or on a separate sheet)			
9					nytic Vegetation ¹ (Explain)	1		
10				_ , ,	and wetland hydrology mu			
11				be present, unless distur		201		
Woody Vine Stratum (Plot size:)	10%	= Total C	over					
1				Hydrophytic				
2				Vegetation	M No D			
		= Total C		Present? Yes	⊠ No □			
% Bare Ground in Herb Stratum 90	4h a n - 1 -		00/	h., FAO! FAO!A!				
Remarks: Hydrophytic vegetation criterion is met because	tnere is grea	ater than 5	u% aomina	nce by FAC and FACW spe	ecies.			

Depth	cription: (Descrit Matrix		eptn n	eeded to document the Redox Feature		ontirm	the absence of indicators.)
(inches)	Color (moist)	%	Cole		Type ¹ Lo	oc ²	Texture Remarks
0-16"	10YR 3/3	100%				5	sa lo
	<u> </u>				-		
	-						
			- —				
				duced Matrix, CS=Covere		and Grai	
-		licable to		Rs, unless otherwise not	ea.)		Indicators for Problematic Hydric Soils ³ :
Histosol	• ,			Sandy Redox (S5)			2 cm Muck (A10)
	oipedon (A2) istic (A3)			Stripped Matrix (S6) Loamy Mucky Mineral (F ²	1) (except MI F	D A 1\	Red Parent Material (TF2)
	en Sulfide (A4)			Loamy Gleyed Matrix (F2		KA I)	☐ Other (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3))		
	ark Surface (A12)	200 (7111)		Redox Dark Surface (F6)			³ Indicators of hydrophytic vegetation and
	/lucky Mineral (S1)			Depleted Dark Surface (F			wetland hydrology must be present,
	Bleyed Matrix (S4)		_	Redox Depressions (F8)	,		unless disturbed or problematic.
Restrictive	Layer (if present)	:		. ,			·
Type:							
	nches):						Hydric Soil Present? Yes ☐ No ☒
	, <u> </u>			any of the hydric soil indic	otoro		<u> </u>
rtomanto. H	nio promo nao no o	naraotoriot	100 101 1	arry or the rryante son male	ators.		
HYDROLO	GY						
-	drology Indicator						
	cators (minimum c	f one requ	red; ch				Secondary Indicators (2 or more required)
	Water (A1)			☐ Water-Stained Leave		ot MLRA	
_	ater Table (A2)			1, 2, 4A, and 4B	5)		4A, and 4B)
☐ Saturation	on (A3)			☐ Salt Crust (B11)			☐ Drainage Patterns (B10)
☐ Water M	larks (B1)			Aquatic Invertebrate	s (B13)		☐ Dry-Season Water Table (C2)
☐ Sedime	nt Deposits (B2)			☐ Hydrogen Sulfide Od	dor (C1)		☐ Saturation Visible on Aerial Imagery (C9)
☐ Drift Dep	posits (B3)			☐ Oxidized Rhizosphe	res along Living	g Roots	(C3) Geomorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence of Reduce	ed Iron (C4)		☐ Shallow Aquitard (D3)
☐ Iron Dep	oosits (B5)			☐ Recent Iron Reduction	on in Tilled Soi	ils (C6)	☐ FAC-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted or Stressed	Plants (D1) (L	.RR A)	☐ Raised Ant Mounds (D6) (LRR A)
☐ Inundati	on Visible on Aeria	l Imagery	(B7)	☐ Other (Explain in Re	marks)		☐ Frost-Heave Hummocks (D7)
☐ Sparsely	y Vegetated Conca	ve Surface	(B8)				
Field Obser	rvations:						
Surface Wa	ter Present?	Yes 🗌	No 🛛	Depth (inches):	_		
Water Table	Present?	Yes 🗌	No 🛛	Depth (inches):			
Saturation F			No 🖾	Depth (inches):		Wetlar	nd Hydrology Present? Yes □ No ⊠
(includes ca	pillary fringe)						
Describe Re	ecorded Data (strea	am gauge,	monito	ring well, aerial photos, pi	revious inspect	tions), if	available:
Remarks: N	o hydrology preser	nt and no e	videnc	e of wetland hydrology.			

Project/Site: Bond Road/SR 305	(City/County	/: Poulsbo,	Kitsap	Sampling Date: 2/2011 6-2016			
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point:	<u>TH 14</u>		
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	T 26 N, R 1E.			
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	convex, none): undulating	Slo	ре (%): <u>5%</u>		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datur	n:		
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30								
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign				ormal Circumstances" prese	ent? Yes⊠ N	Jo 🗆		
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map s						atures, etc.		
Hydrophytic Vegetation Present? Yes ☐ No ☐ Hydric Soil Present? Yes ☐ No ☐ N			e Sampled					
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No				
Remarks: Upland area east of Wetland A. Young forest wi	th trees just	over 20 fe	et, shrubs a	and herbaceous cover).				
VEGETATION – Use scientific names of plant	s.							
		Dominant		Dominance Test works	neet:			
Tree Stratum (Plot size: 30 feet)	% Cover			Number of Dominant Spe		(4)		
Alnus rubra Pseudotsuga menziesii				That Are OBL, FACW, or	FAC: 1	(A)		
3				Total Number of Dominal Species Across All Strata		(B)		
4						(D)		
		= Total C		Percent of Dominant Spe That Are OBL, FACW, or		(A/B)		
Sapling/Shrub Stratum (Plot size: 30' diameter)						(٨/٥)		
1. Rubus spectabilis	80%	Yes	FAC	Prevalence Index works				
2. Rubus armeniacus	10%	No		Total % Cover of:				
3. Ilex opaca				OBL species				
4				FACW species				
5		= Total C	OVAT	· · · · · · · · · · · · · · · · · · ·				
Herb Stratum (Plot size: 30 feet)	3070	- rotar o	OVCI	FACU species x 4 = UPL species x 5 =				
Polystichum munitum	10%	Yes	FACU	Column Totals:				
2. Rubus ursinus			FACU					
3				Prevalence Index =				
4				Hydrophytic Vegetation ☐ Dominance Test is >				
5				☐ Prevalence Index is				
6				☐ Morphological Adapta		supporting		
7 8				data in Remarks				
9				☐ Wetland Non-Vascula	ar Plants ¹			
10				☐ Problematic Hydroph				
11				¹ Indicators of hydric soil a be present, unless distur				
		= Total C		be present, unless distan	Jed of problema			
Woody Vine Stratum (Plot size:)								
1				Hydrophytic Vegetation				
2					□ No ⊠			
% Bare Ground in Herb Stratum 85		= Total C	over					
Remarks: The hydrophytic vegetation criterion is not met b	ecause ther	e is less th	an 50% doi	minance by FAC.				

Depth	cription: (Descrit Matrix		eptn n	Redox Features		ontirm	1 the absence of indicators.)
(inches)	Color (moist)	%	Colo		<u>Type¹ Lo</u>	oc ²	Texture Remarks
0-16"	10YR 3/3	100%					gr sa lo
			-	<u>-</u>	·		
	-				·		
				<u>_</u>			
			• •	-			
	-						
1			· -				2
				duced Matrix, CS=Covered s, unless otherwise note		and Gra	rains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (S5)	<i>-</i> u.,		2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix (S6)			Red Parent Material (TF2)
	stic (A3)			Loamy Mucky Mineral (F1) (except MLF	RA 1)	Other (Explain in Remarks)
	en Sulfide (A4)			Loamy Gleyed Matrix (F2)		,	
	d Below Dark Surfa	ace (A11)		Depleted Matrix (F3)			
☐ Thick Da	ark Surface (A12)			Redox Dark Surface (F6)			³ Indicators of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark Surface (F	7)		wetland hydrology must be present,
-	Sleyed Matrix (S4)			Redox Depressions (F8)			unless disturbed or problematic.
Restrictive	Layer (if present)	:					
Туре:			_				
Depth (in	ches):		_				Hydric Soil Present? Yes ☐ No ☒
HYDROLO							
-	drology Indicator			and all that are ha			
	cators (minimum c	t one requi	red; ch	** **	(DO) (Secondary Indicators (2 or more required)
	Water (A1)			☐ Water-Stained Leave		t MLR	
_	ater Table (A2)			1, 2, 4A, and 4B)			4A, and 4B)
☐ Saturation	` '			Salt Crust (B11)	(D42)		☐ Drainage Patterns (B10)
	larks (B1)			Aquatic Invertebrates	` '		☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydrogen Sulfide Od	` '	D+	☐ Saturation Visible on Aerial Imagery (C9)
	posits (B3)			Oxidized Rhizospher	_	g Root	
_	at or Crust (B4)			☐ Presence of Reduced	` '	I= (CC)	Shallow Aquitard (D3)
	oosits (B5)			Recent Iron Reduction			
	Soil Cracks (B6)		D-7\	Stunted or Stressed	. , ,	KK A)	, , ,
	on Visible on Aeria			☐ Other (Explain in Rer	narks)		☐ Frost-Heave Hummocks (D7)
☐ Sparsely	/ Vegetated Conca	ive Surface	(D0)				
		Vac 🎞	No 🖂	Donth (inches)			
	ter Present?		No 🛛	Depth (inches):			
Water Table			No 🛛	Depth (inches):			
Saturation F (includes ca	'resent'? pillary fringe)	Yes 🗌	No 🛚	Depth (inches):		Wetla	and Hydrology Present? Yes ☐ No ⊠
		am gauge,	monito	ring well, aerial photos, pro	evious inspect	ions), i	if available:
Domarka: N	o bydrology or ordi	longo of	tland L	nydrology observed in this	aroa		
nemarks. N	o riyurology or evic	JETICE OF WE	uanu f	iyarology observed in this	aita.		

Project/Site: Bond Road/SR 305	(City/County	/: Poulsbo,	Sampling Date: 2/2011 6-2016				
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 15	5		
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.			
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): undulating	Slope (%)): <u>5%</u>		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Datum:			
				NWI classification: <u>UPL</u>				
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes⊠ No□			
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map s						es, etc.		
		-	<u> </u>	<u> </u>	<u> </u>			
Hydrophytic Vegetation Present? Yes ⊠ No ☐		Is th	e Sampled	l Area				
Hydric Soil Present? Yes ☐ No ☐ Wetland Hydrology Present? Yes ☐ No ☐		with	in a Wetlar	nd? Yes ☐ No) 🖂			
Remarks: Upland area east of Wetland A. Young forest wi	th trees just	over 20 fe	et, shrubs a	and herbaceous cover).				
Transaction operation area case of receiving reality in the same of the same o		. 0.00.0	01, 01 0.00					
VEGETATION – Use scientific names of plant	ts.							
	Absolute	Dominant	Indicator	Dominance Test works	heet:			
Tree Stratum (Plot size: 30 feet)	% Cover	•		Number of Dominant Spe				
1. Alnus rubra				That Are OBL, FACW, or	FAC: <u>3</u>	(A)		
2. Pseudotsuga menziesii				Total Number of Domina				
3				Species Across All Strata	a: <u>6</u>	(B)		
4		= Total C		Percent of Dominant Spe				
Sapling/Shrub Stratum (Plot size: 30' diameter)	15%	= Total C	over	That Are OBL, FACW, or	FAC: <u>50%</u>	(A/B)		
1. Rubus spectabilis	30%	Yes	FAC	Prevalence Index works	sheet:			
2. Rubus armeniacus	20%	Yes	FAC	Total % Cover of:	Multiply by:			
3				OBL species	x 1 =	_		
4				FACW species	x 2 =			
5				FAC species				
Herb Stratum (Plot size: 30 feet)	50%	= Total C	over	FACU species x 4 =				
Phalaris arundinacea	80%	Yes	FACW	UPL species				
Rubus ursinus	40%		FACU	Column Totals:	(A)	(B)		
3				Prevalence Index =	= B/A =			
4				Hydrophytic Vegetation	Indicators:			
5				☐ Dominance Test is >	50%			
6				☐ Prevalence Index is				
7				☐ Morphological Adapta	ations ¹ (Provide suppor or on a separate sheet			
8				☐ Wetland Non-Vascula)		
9				_	arriants lytic Vegetation¹ (Expla	in)		
10				¹ Indicators of hydric soil a		,		
11				be present, unless distur				
Woody Vine Stratum (Plot size:)	120%	= Total C	over					
1				Hydrophytic				
2				Vegetation				
		= Total C		Present? Yes	□ No ⊠			
% Bare Ground in Herb Stratum								
Remarks: The hydrophytic vegetation criterion is not met b	ecause ther	e is less th	an 50% doi	minance by FAC.				

Profile Descrip	tion: (Describe	to the de	pth needed to do	cument the	indicator	or confirm	n the ab	sence	of indicators.)	
Depth	Matrix		R	edox Feature						
(inches) Co	olor (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Textu</u>	re	Remarks	_
<u>0-12" 10</u>)YR 3/2	100%					gr sa l	0	No redox features	_
<u>12-16"</u> <u>10</u>	YR 4/4	100%					gr sa l	0		
							•			
		·								
1- 0.0	5.5							21		_
			M=Reduced Matrix			d Sand Gi			cation: PL=Pore Lining, M=Matrix.	
_		able to a	II LRRs, unless o		ea.)				ors for Problematic Hydric Soils ³ :	
☐ Histosol (A1☐ Histic Epipe	•		☐ Sandy Redo☐ Stripped Ma						n Muck (A10) Parent Material (TF2)	
☐ Histic Epipe☐ Black Histic				แม (อิต) xy Mineral (F1) (excent	MIRA 1)			er (Explain in Remarks)	
☐ Hydrogen S				ed Matrix (F2		WILIXA I)	_		or (Explain in Nomana)	
	elow Dark Surface	e (A11)	☐ Depleted Ma	•	,					
	Surface (A12)	,		Surface (F6)			3	ndicato	ors of hydrophytic vegetation and	
☐ Sandy Mucl	ky Mineral (S1)		☐ Depleted Da	rk Surface (F	7)				and hydrology must be present,	
	ed Matrix (S4)		☐ Redox Depr	essions (F8)				unles	ss disturbed or problematic.	
Restrictive Lay	er (if present):									
Туре:			_							
Depth (inche	es):		_				Hydi	ic Soil	Present? Yes ☐ No ⊠	
Remarks: The h	ydric soil criterio	n is not m	et because of the	nigh chroma	of the soil	profile.	-1			
HYDROLOGY	<i>(</i>									
Wetland Hydro	logy Indicators:									
Primary Indicate	ors (minimum of c	ne requir	ed; check all that a	apply)				Seco	ndary Indicators (2 or more required)	
☐ Surface Wa	ter (A1)		☐ Water-	Stained Leave	es (B9) (e x	cept MLF	RA	\square W	/ater-Stained Leaves (B9) (MLRA 1,	2,
☐ High Water	Table (A2)		1, 2	, 4A, and 4B)				4A, and 4B)	
☐ Saturation (A3)		☐ Salt Cr	ust (B11)				□ D	rainage Patterns (B10)	
☐ Water Mark	s (B1)		☐ Aquation	Invertebrate	s (B13)			□ D	ry-Season Water Table (C2)	
☐ Sediment D	eposits (B2)		☐ Hydrog	en Sulfide Od	dor (C1)			□ s	aturation Visible on Aerial Imagery (C	C9)
☐ Drift Deposi	ts (B3)		☐ Oxidize	d Rhizosphe	res along l	Living Roo	ts (C3)	□G	eomorphic Position (D2)	
☐ Algal Mat or	Crust (B4)		☐ Presen	ce of Reduce	d Iron (C4)		□s	hallow Aquitard (D3)	
☐ Iron Deposi	ts (B5)		☐ Recent	Iron Reduction	on in Tilled	Soils (C6)	□ F.	AC-Neutral Test (D5)	
☐ Surface Soi	l Cracks (B6)		☐ Stunted	d or Stressed	Plants (D'	1) (LRR A))	□R	aised Ant Mounds (D6) (LRR A)	
☐ Inundation \	/isible on Aerial I	magery (E	37) 🗌 Other (Explain in Re	marks)			☐ F	rost-Heave Hummocks (D7)	
☐ Sparsely Ve	egetated Concave	Surface	(B8)							
Field Observat	ions:									
Surface Water I	Present? Y	'es □ N	lo 🛛 Depth (ind	:hes):						
Water Table Pre	esent? Y	es □ N	lo 🛛 Depth (ind	:hes):						
Saturation Pres	ent? Y	'es □ N		hes):		Wetl	and Hy	drolog	y Present? Yes ☐ No ⊠	
(includes capilla	ary fringe)									
Describe Recor	ded Data (stream	gauge, n	nonitoring well, ae	rial photos, pr	evious ins	pections),	if availa	able:		
Remarks: No hy	/drology or evide	nce of we	tland hydrology ob	served during	the field	visits.				

Project/Site: Bond Road/SR 305	(City/County	/: Poulsbo,	Kitsap	Sampling Date: 2/2011 6-2016		
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Poir	nt: <u>TH 16</u>	
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	T 26 N, R 1E		
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	, convex, none): undulating	S	lope (%): <u>5%</u>	
Subregion (LRR): MLRA 2	_ Lat:			Long:	Daf	tum:	
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30	% slopes			NWI classificat	ion: <u>UPL</u>		
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes ⊠	No □	
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in	_	_	
SUMMARY OF FINDINGS – Attach site map s						features, etc.	
Lhydrophytic Vocatetion Propert2							
Hydrophytic Vegetation Present? Yes ⊠ No ☐ Hydric Soil Present? Yes ☐ No ☒			e Sampled		_		
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlar	nd? Yes ☐ No	· 🖂		
Remarks: Upland area west of Wetland C. Young forest w	ith trees jus	t over 20 fe	eet, shrubs	and herbaceous cover).			
VEGETATION – Use scientific names of plant	ts.						
Total Obstations (Plate in a 90 feet)	Absolute			Dominance Test works	heet:		
Tree Stratum (Plot size: 30 feet) 1. Alnus rubra	% Cover			Number of Dominant Spe That Are OBL, FACW, or		(A)	
2				That Ale OBL, FACW, of	TAC. <u>3</u>	(A)	
3				Total Number of Domina Species Across All Strata		(B)	
4.						(
		= Total C		Percent of Dominant Spe That Are OBL, FACW, or		(A/B)	
Sapling/Shrub Stratum (Plot size: 30' diameter)	000/	V	F40	Prevalence Index works			
Rubus spectabilis Rubus armeniacus	60% 10%	No No		Total % Cover of:		inly by	
3				OBL species		· · · · · · · · · · · · · · · · · · ·	
4.				FACW species			
5.				FAC species			
		= Total C		FACU species	x 4 =		
Herb Stratum (Plot size: 30 feet)	000/		E4 014/	UPL species			
Phalaris arundinacea Polyotichum munitum	60% 20%		FACU	Column Totals:	(A)	(B)	
Polystichum munitum Rubus ursinus	15%	Yes No	FACU	Prevalence Index :	= B/A =		
4				Hydrophytic Vegetation			
5				□ Dominance Test is > 1	50%		
6				☐ Prevalence Index is			
7				☐ Morphological Adapta data in Remarks			
8				☐ Wetland Non-Vascula		ite sneet)	
9				☐ Problematic Hydroph		า¹ (Explain)	
10				¹ Indicators of hydric soil	, ,	` ' '	
11				be present, unless distur	oed or problem	natic.	
Woody Vine Stratum (Plot size:)	95%	= Total C	over				
1				Hydrophytic			
2				Vegetation Present? Yes	⊠ No □		
0/ Page Cround in Herb Charters 5		= Total C	over	163			
% Bare Ground in Herb Stratum <u>5</u> Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater the	an 50% don	 ninance by FAC and FAC\\	/ snecies		
Transaction rydrophysio vogotation ontoholi is filet beca	430 thore 13	grouter the	211 00 /0 GOII	imanoo by i Ao and i Aon	орошов.		

Depth	Matrix				ox Feature		1.5.2	Tauton	Danada
(inches)	Color (moist)	%		or (moist)	%	Type ¹	Loc ²	<u>Texture</u>	
<u>0-16"</u>	10YR 3/3	100%			_			gr sa lo	No redox features
					_				
									
					_				
1Tunor C. C	oncontrotion D. D.		M Dod	lugad Matrix C	C Covers			roino	21 agetians DL Dave Lining M Matrix
	oncentration, D=De Indicators: (Appl						a Sana G		² Location: PL=Pore Lining, M=Matrix. licators for Problematic Hydric Soils ³ :
☐ Histosol		icabic to		Sandy Redox (cu.,			2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix					Red Parent Material (TF2)
☐ Black Hi				Loamy Mucky N	. ,) (except	MLRA 1)		Other (Explain in Remarks)
	n Sulfide (A4)			Loamy Gleyed			,	_	,
	d Below Dark Surfa	ce (A11)		Depleted Matrix	•				
	ark Surface (A12)			Redox Dark Su	rface (F6)			³ ln	dicators of hydrophytic vegetation and
•	lucky Mineral (S1)			Depleted Dark		7)			wetland hydrology must be present,
•	Sleyed Matrix (S4)			Redox Depress	ions (F8)				unless disturbed or problematic.
	Layer (if present):								
Type:			_						
Depth (in	ches):		_					Hydrid	Soil Present? Yes ☐ No ☒
Remarks: Th	ne hydric soil criteri	on is not r	net bec	ause of the hig	h chroma	of the soil	profile.		
HYDROLO	·CV								
-	drology Indicators								
	cators (minimum of	one requ	ired; ch	• •					Secondary Indicators (2 or more required)
☐ Surface				☐ Water-Sta			xcept MLF	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
_	iter Table (A2)				A, and 4B)			4A, and 4B)
☐ Saturation	, ,			☐ Salt Crust	` '				☐ Drainage Patterns (B10)
☐ Water M				Aquatic In					Dry-Season Water Table (C2)
	nt Deposits (B2)			Hydrogen					Saturation Visible on Aerial Imagery (C9)
	oosits (B3)			Oxidized F		_	-	ts (C3)	Geomorphic Position (D2)
	at or Crust (B4)			Presence					Shallow Aquitard (D3)
	osits (B5)			☐ Recent Iro			,	•	FAC-Neutral Test (D5)
	Soil Cracks (B6)		·= -\	☐ Stunted or			1) (LRR A))	Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	0,	` '	☐ Other (Exp	olain in Re	marks)			Frost-Heave Hummocks (D7)
	Vegetated Conca	ve Surface	e (B8)						
Field Obser									
Surface Wat	er Present?	Yes 🗌	No 🛚	Depth (inche	s):				
Water Table	Present?	Yes 🗌	No 🛛	Depth (inche	s):				
	rocont?	Yes 🗌	No 🛛	Depth (inche	s): <u>12"</u>		Wetl	and Hyd	rology Present? Yes 🗌 No 🛚
Saturation P					1 .		nactiona)	if availab	lo:
Saturation P (includes ca	pillary fringe)	m dalido	monitor	ring wall aarial					
Saturation P (includes ca		m gauge,	monitor	ring well, aerial	photos, pr	evious ins	spections),	ii avaiiab	ie.
Saturation P (includes ca Describe Re	pillary fringe) corded Data (strea								
Saturation P (includes ca Describe Re	pillary fringe) corded Data (strea								ibuted to rainfall prior to site visit.
Saturation P (includes ca Describe Re	pillary fringe) corded Data (strea								
Saturation P (includes ca Describe Re	pillary fringe) corded Data (strea								

Project/Site: Bond Road/SR 305	(City/County	Sampling Date: 2/2011 6-2016					
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Po	int: <u>TH 17</u>		
Investigator(s): J. Bartlett			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E	Ξ		
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	convex, none): undulating		Slope (%): <u>5%</u>		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Da	atum:		
				NWI classification: <u>UPL</u>				
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes⊠	No □		
Are Vegetation, Soil, or Hydrology natur				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map s						features, etc.		
			3 P	,				
Hydrophytic Vegetation Present? Yes ⊠ No □		Is th	e Sampled	Area				
Hydric Soil Present? Yes ☐ No ☐		with	in a Wetlar	nd? Yes ☐ No) 🖂			
Wetland Hydrology Present? Yes ☐ No ☒ Remarks: Upland area west of Wetland C. Young forest w	ith trope ius	t over 20 fe	act chrube	and herbaceous cover)				
Remarks. Opiand area west of Wetland G. Toding forest w	itii tiees jus	1 OVE1 20 16	et, siliubs	and herbaceous cover).				
VEGETATION – Use scientific names of plant	s.							
[Absolute	Dominant	Indicator	Dominance Test works	heet:			
<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	% Cover			Number of Dominant Spe				
1. Alnus rubra				That Are OBL, FACW, or	FAC: 3	(A)		
2. Frangula purshiana				Total Number of Domina	nt			
3				Species Across All Strata	i: <u>4</u>	(B)		
4				Percent of Dominant Spe				
Sapling/Shrub Stratum (Plot size: 30' diameter)	15%	= Total C	over	That Are OBL, FACW, or	FAC: <u>75</u>	(A/B)		
1. Rubus spectabilis	30%	Yes	FAC	Prevalence Index works	sheet:			
2. Rubus armeniacus	5%	No	FAC	Total % Cover of:	Mul	tiply by:		
3				OBL species	x 1 = _			
4				FACW species				
5				FAC species				
Herb Stratum (Plot size: 30 feet)	35%	= Total C	over	FACU species				
1. Phalaris arundinacea	80%	Yes	FACW	UPL species Column Totals:				
2. Rubus ursinus	30%		FACU	Column rotals.	(A) _	(B)		
3				Prevalence Index =	= B/A =			
4				Hydrophytic Vegetation	Indicators:			
5				Dominance Test is >				
6				☐ Prevalence Index is				
7				☐ Morphological Adapta data in Remarks				
8				☐ Wetland Non-Vascula				
9				☐ Problematic Hydroph	ytic Vegetatio	on¹ (Explain)		
10				¹ Indicators of hydric soil a				
11		= Total C		be present, unless distur	ped or proble	matic.		
Woody Vine Stratum (Plot size:)	11070	= 10tai O	ovei					
1				Hydrophytic				
2				Vegetation Present? Yes	⊠ No □			
0/ Para Crayand in Harb Strati		= Total C	over	100				
% Bare Ground in Herb Stratum Remarks: Hydrophytic vegetation criterion is met because	there is are:	ater than 50	0% domina	nce by FAC and FACW spe	ecies			
			- , o u 3 i i i i i	sy i no sna i no iv opi				

5 (1		needed to document the indicator or co	ntirm the ab	control of intercentary
Depth Matrix		Redox Features		
(inches) Color (moist)		olor (moist) % Type ¹ Loc		
<u>0-12"</u> <u>10YR 3/3</u>	100%		gr sa lo)
12-16" 10YR 3/6	100%		gr sa lo)
			· ·	
	·			
				
	· —— —			
¹ Type: C=Concentration, D=Dep Hydric Soil Indicators: (Applic		Reduced Matrix, CS=Covered or Coated Sai		² Location: PL=Pore Lining, M=Matrix. Idicators for Problematic Hydric Soils ³ :
Histosol (A1)				2 cm Muck (A10)
☐ Histosof (A1) ☐ Histic Epipedon (A2)] Sandy Redox (S5)] Stripped Matrix (S6)	· ·	Red Parent Material (TF2)
☐ Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLR		Other (Explain in Remarks)
☐ Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)		2 (
☐ Depleted Below Dark Surface	e (A11)	Depleted Matrix (F3)		
☐ Thick Dark Surface (A12)		Redox Dark Surface (F6)	³	ndicators of hydrophytic vegetation and
☐ Sandy Mucky Mineral (S1)		Depleted Dark Surface (F7)		wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4)		Redox Depressions (F8)		unless disturbed or problematic.
Restrictive Layer (if present):				
Type:				
Depth (inches):				ic Soil Present? Yes ☐ No ☒
Remarks: The hydric soil criterion	n is not met b	ecause of the high chroma of the soil profile	Э.	
10/5501 001/				
HYDROLOGY				
Wetland Hydrology Indicators:				
		check all that apply)		Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:		check all that apply) Water-Stained Leaves (B9) (except	MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of co			MLRA	· · · · · · · · · · · · · · · · · · ·
Wetland Hydrology Indicators: Primary Indicators (minimum of compared to the		☐ Water-Stained Leaves (B9) (except	MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of comparison of the comp		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)	MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13)		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1)		 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living	Roots (C3)	 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living ☐ Presence of Reduced Iron (C4)	y Roots (C3) s (C6)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	one required;	 □ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils 	y Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of of the state of the s	one required;	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LF	y Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In	one required;	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils Stunted or Stressed Plants (D1) (LF	y Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Inches Sparsely Vegetated Concave	one required;	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils □ Stunted or Stressed Plants (D1) (LF □ Other (Explain in Remarks)	y Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Inches Sparsely Vegetated Concavers Field Observations: Surface Water Present?	magery (B7)	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils □ Stunted or Stressed Plants (D1) (LF	y Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concavers Field Observations: Surface Water Present? Water Table Present?	magery (B7) e Surface (B8)	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils □ Stunted or Stressed Plants (D1) (LF □ Other (Explain in Remarks) □ Depth (inches):	g Roots (C3) s (C6) RR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concavers Field Observations: Surface Water Present? Water Table Present? Yesaturation Present? Yesaturation Present?	magery (B7) e Surface (B8) es No es No es No es \qquad \qquad \qquad \qquad \qquad \qquad \qqq \qqq \qqq \qqq \qqq \qqq \q	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils □ Stunted or Stressed Plants (D1) (LF □ Other (Explain in Remarks) Depth (inches): □ D	y Roots (C3) s (C6) RR A) Wetland Hyd	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial In Sparsely Vegetated Concavers Field Observations: Surface Water Present? Water Table Present? Yesaturation Present? Yesaturation Present?	magery (B7) e Surface (B8) es No es No es No es \qquad \qquad \qquad \qquad \qquad \qquad \qqq \qqq \qqq \qqq \qqq \qqq \q	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Hydrogen Sulfide Odor (C1) □ Oxidized Rhizospheres along Living □ Presence of Reduced Iron (C4) □ Recent Iron Reduction in Tilled Soils □ Stunted or Stressed Plants (D1) (LF □ Other (Explain in Remarks) □ Depth (inches):	y Roots (C3) s (C6) RR A) Wetland Hyd	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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Project/Site: Bond Road/SR 305		City/Coun	ty: <u>Poulsbo,</u>	Kitsap	Sampling Date: 2/2011 6-2016		
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Point: TH 18		
Investigator(s): J. Bartlett			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1E.		
Landform (hillslope, terrace, etc.): hillslope		Local rel	ief (concave	, convex, none): undulating	Slope (%): <u>5%</u>		
Subregion (LRR): MLRA 2	Lat:			Long:	Datum:		
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15							
Are climatic / hydrologic conditions on the site typical for t					-		
Are Vegetation, Soil, or Hydrology s	-			ormal Circumstances" pres	ent? Yes⊠ No□		
Are Vegetation, Soil, or Hydrology na				ed, explain any answers in			
SUMMARY OF FINDINGS – Attach site ma							
	-						
Hydrophytic Vegetation Present? Yes ⊠ No ☐ Hydric Soil Present? Yes ☐ No ☐		ls t	he Sampled	I Area			
Wetland Hydrology Present? Yes ☐ No ☑	 '	wit	hin a Wetlaı	nd? Yes ☐ No) (
Remarks: Upland area south of Wetland C.	<u> </u>						
·							
VEGETATION – Use scientific names of pla	ints.						
	Absolute	Dominan	t Indicator	Dominance Test works	heet:		
<u>Tree Stratum</u> (Plot size: <u>30 feet</u>)	% Cover	Species'	? Status	Number of Dominant Sp	ecies		
1. Alnus rubra				That Are OBL, FACW, or	r FAC: <u>2</u> (A)		
2				Total Number of Domina	nt		
3		-		Species Across All Strata	a: <u>2</u> (B)		
4		-	·	Percent of Dominant Spe	ecies		
Sapling/Shrub Stratum (Plot size: 30' diameter)	<u>5%</u>	= Total (Cover	That Are OBL, FACW, or	r FAC: <u>100%</u> (A/B)		
Rubus spectabilis	90%	Yes	FAC	Prevalence Index work	sheet:		
Rubus armeniacus		No		Total % Cover of:	Multiply by:		
3.					x 1 =		
4				FACW species	x 2 =		
5				FAC species	x 3 =		
	100%	= Total 0	Cover		x 4 =		
Herb Stratum (Plot size: 30 feet)					x 5 =		
1				Column Totals:	(A) (B)		
2				Prevalence Index	= B/A =		
3				Hydrophytic Vegetation			
4. 5.							
6.				☐ Prevalence Index is	3.0 ¹		
7.					ations ¹ (Provide supporting		
8.					or on a separate sheet)		
9				☐ Wetland Non-Vascul			
10					nytic Vegetation ¹ (Explain)		
11.				be present, unless distur	and wetland hydrology must bed or problematic.		
		= Total 0	Cover		<u> </u>		
Woody Vine Stratum (Plot size:)							
1		-		Hydrophytic Vegetation			
2		_ Total (Cover		No □		
% Bare Ground in Herb Stratum 100%		_ = Total (Cover				
Remarks: The hydrophytic vegetation criterion is met be	cause there is	s greater th	nan 50% dor	minance by FAC species.			

Depth (inches)	Matrix Color (moist)	%	Colo	or (moist) % Type ¹ Lo	c ² Textu	re Remarks
0-10"	10YR 3/3	100%		// ///		
					<u>grsal</u>	
10-16"	10YR 4/6	100%			gr sa l	0
				duced Matrix, CS=Covered or Coated Sa		² Location: PL=Pore Lining, M=Matrix.
-		icable to		s, unless otherwise noted.)		ndicators for Problematic Hydric Soils ³ :
Histosol (, ,			Sandy Redox (S5)		2 cm Muck (A10)
_ Histic Epi _ Black His	ipedon (A2)			Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLF		Red Parent Material (TF2) Other (Explain in Remarks)
	n Sulfide (A4)			Loamy Gleyed Matrix (F2)	\A I)	
_ , .	Below Dark Surfa	ce (A11)		Depleted Matrix (F3)		
	rk Surface (A12)	,		Redox Dark Surface (F6)	3	Indicators of hydrophytic vegetation and
☐ Sandy M	ucky Mineral (S1)			Depleted Dark Surface (F7)		wetland hydrology must be present,
	leyed Matrix (S4)			Redox Depressions (F8)		unless disturbed or problematic.
Restrictive L	_ayer (if present):					
Type:			_			
					Hydi	ric Soil Present? Yes ☐ No 🖂
Depth (inc	ches):		_		ı ı yaı	TIC CONT TESCHE: TES 140 Z
			met bec	ause of the high chroma of the soil profil	,	ine doil reseint: res 🗀 Re 🖂
Remarks: Th	e hydric soil criteri		met bec	ause of the high chroma of the soil profil	,	Tes Contresent: Tes C No C
Remarks: Th	e hydric soil criteri	on is not r	met bec	ause of the high chroma of the soil profil	,	Tes Contresent: Tes Contresent
YDROLO	e hydric soil criteri	on is not r			,	Secondary Indicators (2 or more required)
YDROLO Wetland Hyd	GY drology Indicators	on is not r		eck all that apply)	le.	Secondary Indicators (2 or more required)
YDROLO Wetland Hyo Primary Indic	GY drology Indicators	on is not r			le.	
YDROLO Wetland Hyd Primary Indic Surface V High Wat	GY drology Indicators eators (minimum of Water (A1) ter Table (A2)	on is not r		eck all that apply)	le.	Secondary Indicators (2 or more required) ☐ Water-Stained Leaves (B9) (MLRA 1, 2
YDROLO Wetland Hyd Primary Indic	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B)
YDROLOGO Wetland Hydeliand Hydeliand Hydeliand Hydeliand Hydeliand High Water Mater	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) n (A3)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11)	le.	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOGE Wetland Hyde Primary Indice Surface V High Wat Saturatio Water Ma Sedimen	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13)	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLOG Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	GY drology Indicators cators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS)
YDROLO Wetland Hyd Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living	t MLRA	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS) Geomorphic Position (D2)
YDROLO Wetland Hyd Surface V High Wat Saturatio Water Ma Sedimen Drift Dep	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3) earks (B1) t Deposits (B2) osits (B3) t or Crust (B4)	on is not r		eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS) Geomorphic Position (D2) Shallow Aquitard (D3)
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YDROLOG Wetland Hyd Primary Indic Surface V High Wat Saturatio Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio	GY drology Indicators eators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav	s: f one requ	ired; ch	eck all that apply) Water-Stained Leaves (B9) (excep 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (Li	g Roots (C3)	Secondary Indicators (2 or more required) Water-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (CS) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Project/Site: Bond Road/SR 305	(City/County	/: Poulsbo, I	Kitsap	Sampling Date: 2/2011 6-2016			
Applicant/Owner: Edward Rose and Sons				State: WA	Sampling Po	int: <u>TH 19</u>		
Investigator(s): <u>J. Bartlett</u>			Section, To	ownship, Range: <u>S 10 & 11</u>	, T 26 N, R 1F	Ξ		
Landform (hillslope, terrace, etc.): hillslope		Local relie	ef (concave,	convex, none): undulating		Slope (%): <u>5%</u>		
Subregion (LRR): MLRA 2	_ Lat:			Long:	Da	atum:		
Soil Map Unit Name: 41 Poulsbo gravelly sandy loam, 15-30	% slopes			NWI classificat	ion: <u>UPL</u>			
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology sign	-			ormal Circumstances" prese	ent? Yes ⊠	No □		
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in				
SUMMARY OF FINDINGS – Attach site map s			•	•	ŕ	features, etc.		
Hydrophytic Vegetation Present? Yes ⊠ No □								
Hydric Soil Present? Yes ☐ No ☒			e Sampled					
Wetland Hydrology Present? Yes ☐ No ☒		with	in a Wetlan	nd? Yes ☐ No	· 🗵			
Remarks: Upland area northwest of Wetland C between th	e wetland a	nd the old	road.			-		
VEGETATION – Use scientific names of plant	ts.							
Tree Stratum (Plot size: 30 feet)	Absolute % Cover			Dominance Test works				
1		-		Number of Dominant Spe That Are OBL, FACW, or		(A)		
2								
3				Total Number of Dominal Species Across All Strata		(B)		
4				Percent of Dominant Spe	ocies			
Cooling/Charle Ctuation (District 20) diagraphs		= Total C	over	That Are OBL, FACW, or		(A/B)		
Sapling/Shrub Stratum (Plot size: 30' diameter)	60%	Voc	EAC	Prevalence Index works	sheet:			
Rubus spectabilis Rubus armeniacus				Total % Cover of:		tiply by:		
3				OBL species				
4.				FACW species				
5				FAC species	x 3 = _			
H 1 0 () (D) ()	85%	= Total C	over	FACU species				
Herb Stratum (Plot size: 30 feet)	400/	Voc	EACW/	UPL species				
Phalaris arundinacea Juncus effusus	<u>40%</u> 10%		FACW	Column Totals:	(A) _	(B)		
3				Prevalence Index =	= B/A =			
4				Hydrophytic Vegetation	Indicators:			
5				□ Dominance Test is > !	50%			
6				☐ Prevalence Index is				
7				☐ Morphological Adapta data in Remarks				
8				☐ Wetland Non-Vascula		ate sneet)		
9				☐ Problematic Hydroph		on¹ (Explain)		
10				¹ Indicators of hydric soil a				
11	50%			be present, unless distur	ped or proble	matic.		
Woody Vine Stratum (Plot size:)	30%	= Total C	ovei					
1				Hydrophytic				
2				Vegetation Present? Yes	⊠ No □			
% Bare Ground in Herb Stratum 50%		= Total C	over					
Remarks: The hydrophytic vegetation criterion is met beca	use there is	greater tha	an 50% dom	Ininance by FAC and FACW	/ species.			
, , , , , , , , , , , , , , , , , , , ,		J		,				

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Tupe Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Tupe	· - · - · · - · - · - · - · - · - ·	Color (moist)	%	Color	Redox Features (moist) % Tv	rpe ¹ Loc ²	Textu	re	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	0-16"	, , , , ,		·	<u> </u>				
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) Stripped Matrix (S6) Black Histic (A3) Depleted Blow Dark Surface (A11) Depleted Below Dark Surface (A12) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) wetland Sandy Gleyed Matrix (S4) Redox Dark Surface (F7) Below Depleted Dark Surface (F8) Below Depleted Dark Surface (B8) Below Depleted Dark Surface (B	7-10	1011(3/1	10070				38 10		
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators:		-		·					
Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators:									
Nydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators (Histosol (A1) Sandy Redox (\$5) 2 cm Mi. Histosol (A1) Sandy Redox (\$5) 2 cm Mi. Histosol (A2) Stripped Matrix (\$6) Red Pai Black Histo (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (E Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Pindicators of the strictive Layer (if present): Redox Dark Surface (F7) Wetland Hydric Soil Criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is n									
Nydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators (Histosol (A1) Sandy Redox (\$5) 2 cm Mi. Histosol (A1) Sandy Redox (\$5) 2 cm Mi. Histosol (A2) Stripped Matrix (\$6) Red Pai Black Histo (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (E Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Pindicators of the strictive Layer (if present): Redox Dark Surface (F7) Wetland Hydric Soil Criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is not met because the soil does not have depleted matrix characteristics or remarks: The hydric soil criterions is n									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators:									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators:		_							
Aydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators (Histosol (A1)				· -					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators:				. <u></u>					
Histosol (A1)	Type: C=C	Concentration, D=De	epletion, RI	M=Redu	ced Matrix, CS=Covered or	Coated Sand	Grains.	² Loc	ation: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)	lydric Soil	Indicators: (Appli	icable to a	all LRRs,	unless otherwise noted.)		Ir	ndicato	rs for Problematic Hydric Soils ³ :
Black Histic (A3)	Histosol	(A1)		☐ Sa	andy Redox (S5)] 2 cm	Muck (A10)
Hydrogen Sulfide (A4)									Parent Material (TF2)
Depleted Below Dark Surface (A11)		, ,				xcept MLRA 1	I) [Othe	r (Explain in Remarks)
Thick Dark Surface (A12) □ Redox Dark Surface (F6) 3 Indicators of wetland Depleted Dark Surface (F7) wetland Sandy Gleyed Matrix (S4) □ Redox Depressions (F8) unless destrictive Layer (if present): Type: □ Depth (inches):		, ,							
Sandy Mucky Mineral (S1)	•		ce (A11)				3,		
Sandy Gleyed Matrix (S4)		, ,					า		rs of hydrophytic vegetation and
Restrictive Layer (if present): Type:					. ,				nd hydrology must be present, s disturbed or problematic.
Type:	-	• , ,			edox Depressions (1 0)			unies	s disturbed of problematic.
Depth (inches):									
POROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Seconda Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) Water-Stained Leaves (B9) (except MLRA Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Aquatic Invertebrates (B13) Presence of Reduced Iron (C4) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raise Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes No Depth (inches): Securiace Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							Uncelm	.:- C-!I	Draggert 2 Vac M No 🗆
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Seconda Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water High Water Table (A2) 1, 2, 4A, and 4B) 4. Saturation (A3) Salt Crust (B11) Drain Water Marks (B1) Aquatic Invertebrates (B13) Dry-S Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Satur Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geon Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shalle Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC- Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raise Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost Surface Water Present? Yes No Depth (inches): Water Table Present? Wetland Hydrology Present Inches Naturation Present? Yes No Depth (inches): Wetland Hydrology Presentible Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		, -							
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Saturation (A3)	Vetland Hy Primary Indi	drology Indicators				39) (except M	LRA		· · · · · · · · · · · · · · · · · · ·
Water Marks (B1) ☐ Aquatic Invertebrates (B13) ☐ Dry-S ☐ Sediment Deposits (B2) ☐ Hydrogen Sulfide Odor (C1) ☐ Satur ☐ Drift Deposits (B3) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Geon ☐ Algal Mat or Crust (B4) ☐ Presence of Reduced Iron (C4) ☐ Shalle ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ FAC- ☐ Surface Soil Cracks (B6) ☐ Stunted or Stressed Plants (D1) (LRR A) ☐ Raise ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Frost ☐ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): Water Table Present? Yes ☐ No ☒ Depth (inches): Gaturation Present? Yes ☐ No ☒ Depth (inches): Gaturation Present? Yes ☐ No ☒ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Vetland Hy Primary Indi ☐ Surface	drology Indicators icators (minimum of Water (A1)			☐ Water-Stained Leaves (B	39) (except MI	LRA		ater-Stained Leaves (B9) (MLRA 1, 2,
□ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Satur □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geon □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shallu □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raise □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Vetland Hy Primary Indi ☐ Surface ☐ High Wa	rdrology Indicators icators (minimum of Water (A1) ater Table (A2)			☐ Water-Stained Leaves (B 1, 2, 4A, and 4B)	39) (except M l	LRA	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
□ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Roots (C3) □ Geon □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Shalle □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC-□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raise □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Vetland Hy Primary Indi Surface High Wa Saturation	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3)			☐ Water-Stained Leaves (B 1, 2, 4A, and 4B) ☐ Salt Crust (B11)		LRA	□ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Algal Mat or Crust (B4)	Vetland Hy Primary Indi Surface High Wa Saturati Water M	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)			Water-Stained Leaves (B 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1	13)	LRA	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
□ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6) □ FAC- □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raise □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No ☑ Depth (inches): □ □ Water Table Present? Yes □ No ☑ Depth (inches): □ □ Saturation Present? Yes □ No ☑ Depth (inches): □ □ □ Staturation Present? Yes □ No ☑ Depth (inches): □ □ □ □ □ Security Staturation Present? Yes □ No ☑ Depth (inches): □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)			Water-Stained Leaves (B 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (6	13) C1)		☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) turation Visible on Aerial Imagery (C9
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☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Frost ☐ Sparsely Vegetated Concave Surface (B8) ☐ Geld Observations: ☐ Gurface Water Present? Yes ☐ No ☒ Depth (inches): Vater Table Present? Yes ☐ No ☒ Depth (inches): Gaturation Present? Yes ☐ No ☒ Depth (inches): Gestriation Present? Yes ☐ No ☒ Depth (inches): Gestriation Present? Yes ☐ No ☒ Depth (inches): Depth (inches): Wetland Hydrology Preservible Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indi Surface High Wa Saturati Water M Sedimel Drift Dep	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4)]]]]	Water-Stained Leaves (B 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (C) Oxidized Rhizospheres a Presence of Reduced Iro	13) C1) along Living Ro on (C4)	pots (C3)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aerial Imagery (C9 comorphic Position (D2) allow Aquitard (D3)
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Remarks: No hydrology present during field visit and no evidence of wetland hydrology.	Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obset Surface Water Table Saturation F (includes ca	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present? Present? Present? upillary fringe)	Imagery (Ive Surface Yes	E	Water-Stained Leaves (B 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (C Oxidized Rhizospheres a Presence of Reduced Iro Recent Iron Reduction in Stunted or Stressed Plan Other (Explain in Remark Depth (inches): Depth (inches):	13) C1) along Living Roon (C4) a Tilled Soils (Cats (D1) (LRR	oots (C3) C6) A)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aerial Imagery (CS comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ast-Heave Hummocks (D7)
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	Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation Fincludes ca	rdrology Indicators icators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aerial by Vegetated Concavervations: ater Present? Present? Present? pillary fringe) ecorded Data (strean	Imagery (I ve Surface Yes	E B7) (B8) No No No Mo Mo Mo Mo Mo Mo Mo Mo Mo M	Water-Stained Leaves (B 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B1 Hydrogen Sulfide Odor (C Oxidized Rhizospheres at Presence of Reduced Iro Recent Iron Reduction in Stunted or Stressed Plan Other (Explain in Remark Depth (inches): Depth (inches): Depth (inches):	nts (D1) (LRR) We have inspections	oots (C3) C6) A)	☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (CS comorphic Position (D2) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ast-Heave Hummocks (D7)

RATING SUMMARY – Western Washington

Name of wetland (or ID	#):	Wetla	nd A	4				_Dat	e of site visi	t: <u>6/17/16</u>
Rated by J Bartlett			Tr	aine	ed by	Ecolo	gy?_	<u>X</u> Y	es	_No Date o	f training 11/2014
HGM Class used fo	r rati	ing_	Slope				Wet	land l	nas m	nultiple HGN	1 classes?Y <u>X</u> N
Source o	f bas	e aer	ial pho	oto/	map _	Go	ogle	Eartl	<u>1</u>		can be combined).
1. Category of v	vetla Cate	and gory		d on al so	FUN core =	N CTI (23 –	ONS 27		uncu	0115 <u>A</u> 01 S	Score for each function based on three
((_	•	II – To 'y IV –					5			ratings (order of ratings is not
FUNCTION	Improving Water Quality		Hydrologic		Habitat			important)			
	vva	tei Q	uanty	Circle the appropriate ratings					tings		9 = H,H,H 8 = H,H,M
Site Potential	Н	М	L	Н	М	<u>L</u>	Н	M	L		7 = H,H,L
Landscape Potential	Н	М	L	Н	М	L	Н	M	L	•	7 = H,M,M
Value	<u>H</u>	М	L	Н	<u>M</u>	L	Н	<u>M</u>	L	TOTAL	6 = H,M,L
Score Based on Ratings		5 4			6			15	6 = M,M,M 5 = H,L,L 5 = M,M,L		
_	•						•			<u>, </u>	4 = M,L,L 3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland of High Conservation Value	I	
Bog		I
Mature Forest		I
Old Growth Forest		I
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above	N	one

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 6
Hydroperiods	H 1.2	6
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	6
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	6
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	6
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	8
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	10
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	10

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is **Lake Fringe** (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - X The wetland is on a slope (*slope can be very gradual*),
 - X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - X The water leaves the wetland **without being impounded**.

NO - go to 5

YES - The wetland class is **Slope**

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.
 - ___The overbank flooding occurs at least once every 2 years.

NO – go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to im	prove water quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in 100 ft of horizontal distance)	n elevation for every	0
Slope is 1% or less	points = 3	
Slope is > 1%-2%	points = 2	
Slope is > 2%-5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definite	tions): Yes = 3 No = 0	3
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:		2
Choose the points appropriate for the description that best fits the plants in the wetland	l. Dense means you	
have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed	d and plants are higher	
than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > 1/4 of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
Total for S 1 Add the point	nts in the boxes above	5

Rating of Site Potential If score is: 12 = H 6-11 = M X 0-5 = L Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	0*
Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: 1-2 = M X 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the $303(d)$ list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	1
Total for S 3 Add the points in the boxes above	3

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L

Record the rating on the first page

^{*}SR 305 is upslope of Wetland A but does not contribute stormwater directly to the wetland. Most of the upslope area is composed of presently undeveloped forest.

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	sion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/8	0
in), or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	
Rating of Site Potential If score is: 1 = M X 0 = I	the first nage

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess	
surface runoff? Yes = 1 No = 0	

Rating of Landscape Potential If score is: ___1 = M _X _0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems:	1
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or	
natural resources (e.g., houses or salmon redds) points = 2	I
Surface flooding problems are in a sub-basin farther down-gradient points = 1	I
No flooding problems anywhere downstream points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	
Yes = 2 No = 0	
Total for S 6 Add the points in the boxes above	1

Rating of Value If score is: 2-4 = H X 1 = M 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

^{**}SR 305 is upslope of Wetland A but does not contribute stormwater directly to the wetland. Most of the upslope area is composed of presently undeveloped forest.

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the 1 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 Emergent 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon 1 H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 X Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species 1 Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1< 5 species points = 0 1 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points

Wedana name of namber 11		
H 1.5. Special habitat features:		4
Check the habitat features that are present in the wetland. <i>The number of checks is</i>	s the number of points.	
X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long	= :	
X Standing snags (dbh > 4 in) within the wetland	,	
X Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plant	s extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (1		
Stable steep banks of fine material that might be used by beaver or muskrat for	or denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that	= : =	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present	in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibian	s)	
X Invasive plants cover less than 25% of the wetland area in every stratum of plants	ants (see H 1.1 for list of	
strata)		
Total for H 1 Add the	e points in the boxes above	8
Rating of Site Potential If score is:15-18 = HX7-14 = M0-6 = L	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of t	the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		1
Calculate: % undisturbed habitat 9.6 + [(% moderate and low intensity land uses])/2] = 12.5 % If total	
accessible habitat is:	, ,	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	<u>points = 1</u>	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	pomito o	1
Calculate: % undisturbed habitat <u>28.1</u> + [(% moderate and low intensity land uses	:\/2] 13 5 = 44 1 %	_
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches	<u>points = 1</u>	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points = 0	0
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	v
≤ 50% of 1 km Polygon is high intensity	points = 0	2
Total for H 2 Add the Rating of Landscape Potential If score is: 4-6 = H X 1-3 = M <1 = L	e points in the boxes above Record the rating on the	
Rating of Lanuscape Potential in Score is. 4-0 - 11 1-1-1-11 1-1-1	Record the rating on the	e jiist page
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Ch</i>	noose only the highest score	
that applies to the wetland being rated.	oose omy the inglicat score	
Site meets ANY of the following criteria:	points = 2	
 It has 3 or more priority habitats within 100 m (see next page) 		
 It provides habitat for Threatened or Endangered species (any plant or animal 	on the state or federal lists)	
 It is mapped as a location for an individual WDFW priority species 	,	
 It is a Wetland of High Conservation Value as determined by the Department of 	of Natural Resources	
 It has been categorized as an important habitat site in a local or regional comp 	rehensive plan, in a	
Shoreline Master Plan, or in a watershed plan		
Site has 1 or 2 priority habitats (listed on next page) within 100 m	<u>points = 1</u>	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is:2 = HX1 = M0 = L	Record the rating on	the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Watland Tune	Catagony
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 <u>No</u> = Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland.	Cat. II
— The wetland has at least two of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands. Yes = Category I No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks The largest in which the wetland is largest departation pended water that is saline or breakish (2.0.5 ppt)	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon SC 5.1 Does the wetland most all of the following three conditions?	Cat. I
 SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. II
mowed grassland. — The wetland is larger than $^1/_{10}$ ac (4350 ft 2) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating 	Cat I
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M	Cat. II
for the three aspects of function)? Yes = Category I No – Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3	Cat. III
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. IV
Category of wetland based on Special Characteristics	

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Score Based on

Ratings

RATING SUMMARY – Western Washington

Name of wetland (or ID	#): _	Wetla	nd I	В				_Dat	e of site visit	: <u>6/17/16</u>	5	
Rated by J Bartlett			Tr	aine	ed by E	colo	gy?	<u>X</u> Y	es	_No Date of	training_	11/2014	1
HGM Class used fo	r rati	ing_	Slope				Wetl	and l	nas m	nultiple HGM	classes?_	Y <u>X</u>	_N
NOTE: Form	is n	ot co	mplet	e wi	ithout	the f	igure	es rec	quest	ed (figures c	an be com	nbined).	
Source o	f bas	e aer	rial pho	oto/	map _	Go	ogle	Eart	h				
OVERALL WETLA 1. Category of v	vetl	and	based	d or	1 FUN	CTIC	ONS	on f	uncti	ons <u>X</u> or sp	pecial cha	racteristi	cs
·		•			core =						Score fo		7
	Cate	gory	II – To	tal s	core =	= 20 -	- 22				function on thre	n based	
	Categ	ory I	II – To	tal s	core =	= 16 -	- 19				ratings		
X	_Cat	egory	y IV – ⁻	Tota	l score	= 9	- 15				(order d is not	f ratings	
FUNCTION		nprov ter Q	ing uality	Н	lydrolo	gic	ŀ	labita	at		importa 9 = H,H,I	•	
					Circle t	he ap	propri	ate ra	tings		8 = H,H,I		
Site Potential	Н	М	L	Н	М	L	Н	<u>M</u>	<u>L</u>		7 = H,H,I		
Landscape Potential	Н	М	L	Н	М	L	Н	М	L		7 = H,M,		
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL	6 = H,M,	L	

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I II	
Wetland of High Conservation Value	I	
Bog	I	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I II	
Interdunal	I II III IV	
None of the above	None	

6 = M,M,M

5 = H,L,L

5 = M,M,L 4 = M,L,L 3 = L,L,L

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Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 6
Hydroperiods	H 1.2	7
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	7
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	7
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	7
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	9
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	10
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	10

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is Lake Fringe (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - X The wetland is on a slope (*slope can be very gradual*),
 - X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - X The water leaves the wetland **without being impounded**.

NO - go to 5

YES - The wetland class is Slope

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ___The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
 - ___The overbank flooding occurs at least once every 2 years.

NO – go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

SLOPE WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)	0
Slope is 1% or less points = 3	
Slope is > 1%-2% points = 2	
Slope is > 2%-5% points = 1	
Slope is greater than 5% points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.	3
Dense, uncut, herbaceous plants > 90% of the wetland area points = 6	
Dense, uncut, herbaceous plants > ½ of area points = 3	
Dense, woody, plants > ½ of area points = 2	
Dense, uncut, herbaceous plants > ¼ of area points = 1	
Does not meet any of the criteria above for plants points = 0	_
Total for S 1 Add the points in the boxes above	3

Rating of Site Potential If score is: 12 = H 6-11 = M X 0-5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	0
Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: 1-2 = M X 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	1
Total for S 3 Add the points in the boxes above	2

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L

Record the rating on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosi	on
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/8	0
in), or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	
Pating of Site Potential If score is: 1 - M V 0 - I	

Rating of Site Potential If score is: 1 = M X 0 = L

Record the rating on the first page

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess	0*
surface runoff? Yes = 1 No = 0	

Rating of Landscape Potential If score is: ___1 = M _X _0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems:	1	
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or	I	
natural resources (e.g., houses or salmon redds) points = 2	I	
Surface flooding problems are in a sub-basin farther down-gradient points = 1		
No flooding problems anywhere downstream points = 0	<u>[</u>	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?		
Yes = 2 No = 0		
Total for S 6 Add the points in the boxes above	1	

Rating of Value If score is: 2-4 = H X 1 = M 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

*State Highway 305 is located south of Wetland B just above the culvert crossing. It does not appear that water from the highway drains into Wetland B because the highway lanes slope southerly away from the wetland.

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the 1 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 Emergent 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon 1 H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 X Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species 1 Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1< 5 species points = 0 1 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points

Wedana name of number. <u>B</u>		
H 1.5. Special habitat features:		3
Check the habitat features that are present in the wetland. The number	of checks is the number of points.	
X Large, downed, woody debris within the wetland (> 4 in diameter a	and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland		
X Undercut banks are present for at least 6.6 ft (2 m) and/or overha over a stream (or ditch) in, or contiguous with the wetland, for at least 6.6 ft (2 m) and/or overha	= = :	
Stable steep banks of fine material that might be used by beaver or	= : =	
slope) OR signs of recent beaver activity are present (cut shrubs or	trees that have not yet weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches a permanently or seasonally inundated (structures for egg-laying by	=	
X Invasive plants cover less than 25% of the wetland area in every str	-	
strata)	atum of plants (see 11 1.1 for list of	
Total for H 1	Add the points in the boxes above	7
Rating of Site Potential If score is: 15-18 = H X 7-14 = M 0-6 = L	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat fun		,
		I 4
H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>)		1
Calculate: % undisturbed habitat 12.9 + [(% moderate and low intensity	rland uses)/2] = <u>16.2</u> %	
If total accessible habitat is:		
> 1/3 (33.3%) of 1 km Polygon	points = 3	
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	<u>points = 1</u>	
< 10% of 1 km Polygon H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	points = 0	1
Calculate: % undisturbed habitat 21.2 + [(% moderate and low into	onsity land usos)/21 = 20.9%	1
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 3	
Undisturbed habitat 10-50% and > 3 patches	<u>points = 1</u>	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	poc	-2
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	
≤ 50% of 1 km Polygon is high intensity	points = 0	
	Add the points in the boxes above	<1
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M X < 1 =		the first page
 	_	, , ,
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or p	policies? Choose only the highest score	
that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
 It has 3 or more priority habitats within 100 m (see next page) 		
It provides habitat for Threatened or Endangered species (any plant	t or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species This a Western definition for an individual WDFW priority species. The second seco	and the sector of Makeural S	
 It is a Wetland of High Conservation Value as determined by the De It has been categorized as an important habitat site in a local or reg 	₹	
Shoreline Master Plan, or in a watershed plan	ionai comprenensive plan, III a	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	<u>points = 1</u>	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is:2 = HX1 = M0 = L	Record the rating o	n the first nage
	necora the rating of	. are just page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- X **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- X **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Motional Type	Cotogowy
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland.	Cat. II
— The wetland has at least two of the following features: tidal channels, depressions with open water, or	Cat. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key</i>	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? Yes – Go to SC 3.3 No = Is not a bog SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No - Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
 Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland.	Cat. II
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	Cat I
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. III Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

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Value

Ratings

Score Based on

RATING SUMMARY – Western Washington

Name of wetland (or ID #):	: <u>Wetla</u>	nd C					_Date	e of site visit:	6/17/16	<u> </u>	
Rated by J Bartlett		Tr	aine	d by I	Ecolo	gy?_)	<u>(</u>	es	_No Date of	training_	11/2014	!
HGM Class used fo	r rating	Slope				Wetl	and h	nas m	ultiple HGM	classes?_	Y <u>X</u>	_N
NOTE: Form	is not	complet	e wit	thout	the f	igure	es rec	uest	ed (figures co	an be com	nbined).	
Source o	f base a	aerial pho	oto/r	map _	Go	ogle	Earth	1				
OVERALL WETLA	ND C	ATEGO	RY	IV	(b	ased	on f	unctio	ons <u>X</u> or sp	ecial cha	racteristi	cs
 Category of v 	1. Category of wetland based on FUNCTIONS											
Category I – Total score = 23 – 27 Score for each												
Category II – Total score = 20 – 22 function based												
Category III – Total score = 16 – 19 on three ratings												
X Category IV – Total score = 9 – 15 (order of ratings is not												
FUNCTION	•	roving	Ну	ydrolo	gic	H	labita	it		importa	int)	
	Water	Quality			-					9 = H,H,I	Н	
	1		1	Circle t						8 = H,H,I	М	
Site Potential		И <u>Г</u>	Н	M	L	Н	<u>M</u>	L		7 = H,H,I		
Landscape Potential	H N	√ <u>L</u>	Н	M	L	Н	M	L		$7 = H_{i}M_{i}$	M	

2. Category based on SPECIAL CHARACTERISTICS of wetland

Н

M

L

Н

Μ

5

L

<u>H</u>

Μ

5

CHARACTERISTIC	CATEGORY		
Estuarine	I II		
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I II		
Interdunal	I II III IV		
None of the above	None		

6 = H,M,L

5 = H,L,L

5 = M,M,L 4 = M,L,L 3 = L,L,L

6 = M,M,M

TOTAL

14

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Ponded depressions	R 1.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	R 2.4	
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	
Width of unit vs. width of stream (can be added to another figure)	R 4.1	
Map of the contributing basin	R 2.2, R 2.3, R 5.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 6
Hydroperiods	H 1.2	6
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	6
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	6
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	6
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	8
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	10
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	10

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

NO – go to 2

YES – the wetland class is **Tidal Fringe** – go to 1.1

1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

NO – go to 3

YES – The wetland class is **Flats**

If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.

- 3. Does the entire wetland unit **meet all** of the following criteria?
 - __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
 - __At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO – go to 4

YES - The wetland class is Lake Fringe (Lacustrine Fringe)

- 4. Does the entire wetland unit **meet all** of the following criteria?
 - X The wetland is on a slope (*slope can be very gradual*),
 - X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - X The water leaves the wetland **without being impounded**.

NO – go to 5

YES - The wetland class is Slope

NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

- 5. Does the entire wetland unit **meet all** of the following criteria?
 - ____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.
 - ___The overbank flooding occurs at least once every 2 years.

NO – go to 6

YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO - go to 7

YES – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8

YES – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have **more than 2 HGM classes** within a wetland boundary, classify the wetland as Depressional for the rating.

SLOPE WETLANDS Water Quality Functions - Indicators that the site functions to improve water quality	
S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance) Slope is 1% or less points = 3	0
Slope is > 1%-2% points = 2 Slope is > 2%-5% points = 1 Slope is greater than 5% points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.	2
Dense, uncut, herbaceous plants > 90% of the wetland area Dense, uncut, herbaceous plants > ½ of area Dense, woody, plants > ½ of area Dense, uncut, herbaceous plants > ¼ of area Does not meet any of the criteria above for plants points = 0 points = 6 points = 3 points = 2 points = 1 points = 0	
Total for S 1 Add the points in the boxes above	2

Rating of Site Potential If score is: 12 = H 6-11 = M X 0-5 = L Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	0
Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?	0
Other sources Yes = 1 No = 0	
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: 1-2 = M X 0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	1
Total for S 3 Add the points in the boxes above	2

Rating of Value If score is: X 2-4 = H ___1 = M ___0 = L

Record the rating on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream	m erosion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points approp for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually	
in), or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points	5 = 1
All athor conditions	
Pating of Site Potential If score is: 1 - M V 0 - I	ating on the first nage

Rating of Site Potential If score is: 1 = M X 0 = L

S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess	0*
surface runoff? Yes = 1 No = 0	

Rating of Landscape Potential If score is: ___1 = M _X _0 = L

Record the rating on the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?	
S 6.1. Distance to the nearest areas downstream that have flooding problems:	1
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or	
natural resources (e.g., houses or salmon redds) points = 2	
Surface flooding problems are in a sub-basin farther down-gradient points = 1	
No flooding problems anywhere downstream points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	0
Yes = 2 No = 0	
Total for S 6 Add the points in the boxes above	1

Rating of Value If score is: ____2-4 = H ___X __1 = M ____0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

*Bond Road (SR 307) is located east of Wetland C. The road is downslope of Wetland C and there is a roadside ditch along the road that prevents runoff from entering the lower limits of the wetland.

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? 2 H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon 0 H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points H 1.3. Richness of plant species 1 Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1< 5 species points = 0 1 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are **HIGH** = 3points

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WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: *NOTE:* This question is independent of the land use between the wetland unit and the priority habitat.

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Old-growth/Mature forests: Old-growth west of Cascade crest Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 see web link above*).
- **Riparian**: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 see web link above*).
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
- **Nearshore**: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report see web link on previous page).
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Westland Tune	Catagogg
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland.	Cat. II
— The wetland has at least two of the following features: tidal channels, depressions with open water, or	Cat. II
contiguous freshwater wetlands. Yes = Category I No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 <u>No</u> – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to SC 3.3 No = Is not a bog	
pond? Yes – Go to SC 3.3 No = Is not a bog SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by	
measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
 Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland.	Cat. II
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating 	Cat I
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. III Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	

Wetland name or number: <u>C</u>

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