

NON-WETLAND DETERMINEATION

July 16, 2020 (revised November 4, 2020)



KCPW Recycling Center 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 2407.02

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WDFW Stream Typing Letter, dated June 5, 2020

SIGNATURE PAGE

The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.

Bartlet MMI

Joanne Bartlett, SPWS Senior Biologist

INTRODUCTION

Ecological Land Services, Inc. (ELS) was contracted by Edward Rose and Sons (Rose) to complete a non-wetland determination report for the Kitsap County Public Works (KCPW) Recycling Center on Viking Way, parcel number 102601-4-028-2003, within a portion of Section 10, Township 26 North, Range 1 East of the Willamette Meridian, in Poulsbo, Washington (Figure 1). This report summarizes findings of the non-wetland determination according to the Poulsbo Municipal Code (*PMC*), *Chapter 16.20*. This report has been revised to reflect the designation of the drainage as a Type Ns1 stream. It includes the 2016 data and photos but both the data forms and most of the photoplates were revised to show current conditions.

METHODOLOGY

The wetland determination followed the Routine Determination Method in the Western Mountains, Valleys, and Coast Region 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 (DOE), and locally by the City of Poulsbo.

To determine the presence or absence of critical areas on this property, ELS biologists collected data on vegetation, hydrology, and soils. Vegetation, hydrology, and soil data was collected at six test plots conducted across the property. Data collection was focused in areas where the maps show potential wetlands (hydric soil). The test plots were conducted primarily in the forest at the around the stream corridor with several conducted along the stream channel to verify the absence of wetland conditions (Figure 2). The site was evaluated by Wiltermood Associates in 1999 and no wetlands were identified because the data revealed no positive indicators for any of the three wetland parameters. The 2016 ELS site visit revealed that there had been no change to the onsite conditions, but the data was collected to document the absence of wetlands. The 2016 data reflects 2020 property conditions except that the drainage is classified as a Type Ns stream.

PROPERTY DESCRIPTION

The property is located on the east side of Viking Way NW in Poulsbo, Washington (Figure 1). It is an L-shaped property that was purchased by Edward Rose and Sons from Kitsap County Public Works, Solid Waste Division and housed the local recycling center (Photoplate 1). The recycling center was removed, and the property is currently undeveloped except for the large gravel pad and the stormwater pond on the east side (Photoplate 1). The remainder of the site is undeveloped upland forest (Photoplates 4 and 5). The property is bordered by undeveloped forest to the south, residential development to the east, and the recently developed Kitsap Transit Center to the north (Figure 2). The property is level across the gravel pad with a short steep bank up to the north. Above the bank, the terrain is level to undulating to the north property line. To the east the topography slopes gradually down into the seasonal, Type Ns stream (Photoplates 3 and 4). The property is forested around the active recycling center with a small open meadow immediately north of the recycling center vegetated with portions dominated by Scot's broom (*Cytisus scoparius*, FACU).

The stream enters the north property line from via a culvert that discharges stormwater from the Kitsap Transit Center, which lies immediately north. It flows southerly through a shallow, sometimes dry channel across the northern section of the study area (Figure 2). The stream crosses a property that is not included in the project and reenters a southern section of the project site. The stream becomes more channelized on the southern section because of the steep slopes along the ravine. Wetland B lies at the south end of the stream and extends to the culvert under SR 305.

VEGETATION

Vegetation was evaluated specifically in the area mapped as hydric soil through which the intermittent drainage flows at Test Plots 1 through 4. These areas are dominated by big leaf maple (*Acer macrophyllum*, FACU), and western red cedar (*Thuja plicata*, FAC) in the tree canopy. The shrub layer is dominated by oso-berry (*Oemleria cerasiformis*, FACU), salmonberry (*Rubus spectabilis*, FAC), salal (*Gaultheria shallon*, FACU), evergreen huckleberry (*Vaccinium ovatum*, FACU), and red huckleberry (*Vaccinium parvifolium*, FACU). The herbaceous layer was very sparse and composed of low percentages of sword fern (*Polystichum munitum*, FACU), trailing blackberry (*Rubus ursinus*, FACU), creeping buttercup (*Ranunculus repens*, FAC), Dewey's sedge (*Carex deweyana*, FAC), and lady fern (*Athyrium cyclosorum*, FAC). Individual test plots also contained low cover of fringecup (*Tellima grandiflora*, FACU), bracken fern (*Pteridium aquilinum*, FACU), and enchanter's nightshade (*Circaea alpina*, FAC). The vegetation in the area mapped as hydric soil does not meet the hydrophytic vegetation criterion because there is less than 50-percent dominance by FAC species.

The upland forest areas of the property were represented by Test Plots 5 and 6 north of the recycling center. These areas were dominated by Douglas fir (*Pseudotsuga menziesii*, FACU) in the canopy, with one occurrence of western red cedar (Test Plot 6). The shrub layer was dominated by salal and evergreen huckleberry with smaller percentages of pacific rhododendron (*Rhododendron macrophyllum*, FACU), honeysuckle (*Lonicera ciliosa*, UPL), and Himalayan blackberry (*Rubus armeniacus*, FAC). The herbaceous layer was sparsely vegetated due to the dense canopy and thick shrubs. It was dominated by trailing blackberry, sword fern, and western starflower (*Trientalis latifolia*, FACU). The hydrophytic vegetation criterion is not met in these areas because there is less than 50-percent dominance by FAC species.

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, Poulsbo sandy gravelly loam, 0 to 6 percent slopes (39) and Norma fine sandy loam (37) are mapped from west to east across the property (Figure 3). Norma soils are considered hydric and Poulsbo soil types are not classified as hydric (NRCS 2015). 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. In the case of this property, the areas mapped as hydric soil do not exhibit positive indicators for any of the three wetland parameters.

The soil profiles in the area mapped with Norma soil (Test Plots 1 through 4) were composed of gravelly sandy loam with brown to brownish-orange (10YR 2/2 to 10YR 5/3) matrix colors. No redoximorphic features occurred in any of the plots. The soil sampled did not match descriptions of Norma fine sandy loam, but more closely matched descriptions of Poulsbo gravelly sandy loam, mapped on the remainder of the property. The soil revealed in these test plots have high matrix chromas and lack redoximorphic concentrations, so they do not exhibit characteristics for any of the hydric soil indicators and therefore, do not meet the hydric soil criteria.

The upland soils evaluated on the upland forested areas of the property were also composed of gravelly sandy loam with light brown to bright orange (10YR 3/3 to 10YR 4/4) matrix colors. The upland soils contained no redoximorphic features and meet none of the hydric soil indicators because of the high matrix chromas observed. The profiles sampled were consistent with the descriptions of Poulsbo gravelly sandy loam.

HYDROLOGY

The 2016 data records no hydrology or evidence of wetland hydrology in the test plots, including those conducted within the stream path. The areas outside of the test plots were also dry and did not show any evidence to indicate wetland hydrology. The stream enters the property from a 36-inch culvert that emerges from beneath the concrete block wall the supports the south end of the Kitsap Transit Center. The stream corridor did not exhibit evidence of wetland hydrology but there was evidence that water temporarily flows through the channel during winter months and following heavy storm events. Because the water flow events occur mainly during and following severe storm events, the flow is heavy and flashy due to upslope development, as observed in early June 2020.

CRITICAL AREAS INVENTORIES¹

National Wetlands Inventory (NWI) maps a palustrine, forested, seasonally flooded wetland along the east side of the property (Figure 4). ELS biologists disagree with the mapping because there was no evidence of wetlands on or adjacent to this property based on data collected in the field and general site observations.

The Kitsap County GIS website maps potential wetlands in the same location as the hydric soil mapping and the NWI mapping and the drainage is mapped as a stream (Figure 5). ELS biologists disagree with the mapping because, based on data collected in the field and general site observations, no wetlands were identified on or within 300 feet of the property.

CRITICAL AREAS SUMMARY

WETLAND DETERMINATION

The central portion of the property is mapped as having hydric soils (Norma fine sandy loam) so data collection was focused in that area to document the absence of wetland conditions. The forest on the north, east, and south of the gravel pad was determined to upland because the data collected revealed a lack of positive indicators for each of the three wetland parameters. The data collected along the stream channel also indicated the absence of wetland conditions. The vegetation was dominated by upland species and the soil profiles consisted of bright orange, sandy soils, so hydrophytic vegetation and hydric soil criteria are not met. Water was not observed at any of the test plots and there was no evidence to indicate wetland hydrology onsite. Wetland was not identified within 300 feet of the property so the project will not be affected by offsite wetland buffers.

WATER TYPING

The stream conditions continue north from Wetland B ending at the Kitsap Transit Center property as determined during the June 3, 2020 site visit with the City of Poulsbo, Suquamish Tribe, Washington Department of Fish and Wildlife (WDFW), and Grette Associates (Grette). The site visit was conducted to determine whether the swale identified during numerous visits to the property met the definition of a stream. The onsite swale has been affected by the increased discharge of stormwater from the Kitsap Transit property over the past couple of years. The increased stormwater discharge has resulted in a more channelized discharge to the subject property, resulting in development of more definitive stream conditions. It was determined to be a stream and on June 9, 2020, the ordinary high-water mark (OHWM) was flagged and surveyed to identify the extent of the Type F and Type Ns portions for regulatory purposes.

The City of Poulsbo has three categories of Type N and two categories of Type F water types and requires different buffers for each type. The water type and buffers as they apply to the on and offsite segments of the stream are described below.

- The onsite segment is a Type Ns1 water because it is seasonally flowing, lacks fish use, and connects to a Type S, F, or Np water.
 - Type Ns1 waters require a 75-foot buffer.

¹ Critical Area Inventories 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.

- The offsite segment that crosses a separately owned property and enters the south end of the project site, is a Type F2 water because it is a fish bearing stream that does not support salmonid species. This segment of stream is directly connected to the onsite segment.
 - Type F2 waters require a 150-foot buffer.

The 75 foot buffer for the onsite Type Ns1 segment is largely composed of upland coniferous forest with a dense low shrub and herbaceous layer; the high shrub layer is dense in some areas but non-existent in others. A section of the western buffer lies adjacent to the stormwater pond on the former recycling center site, which are within 56 feet of the stream. Because the stormwater pond lie within the buffer and are a legally established, nonconforming, use, they represent an interrupted buffer based on the definition in the PMC as quoted below:

"Interrupted buffer" means a critical area buffer width established by this chapter, where a legally established, nonconforming use of the buffer exists (e.g., a road or structures that lies within the width of the buffer required for the critical area).

The PMC further defines buffer interruptions as follows:

1. Where a legally established, pre-existing use of the buffer exists (such as a road or structure that extends into the regulated wetland buffer), those proposed activities that are within the wetland or stream buffer, but are separated from the critical area by an existing permanent substantial improvement, which serves to eliminate or greatly reduce the impact of the proposed activity upon the critical area, are exempt; provided, that the detrimental impact to the critical area does not increase. However, if the impacts do increase, the planning director shall determine if additional buffer may be required along the impact area of the interruption. A substantial improvement structure. An exemption request for an interrupted buffer may require a functional analysis report. In determining whether a functional analysis is necessary, the planning director shall consider the hydrologic and habitat connection potential and the extent and permanence of the interruption.

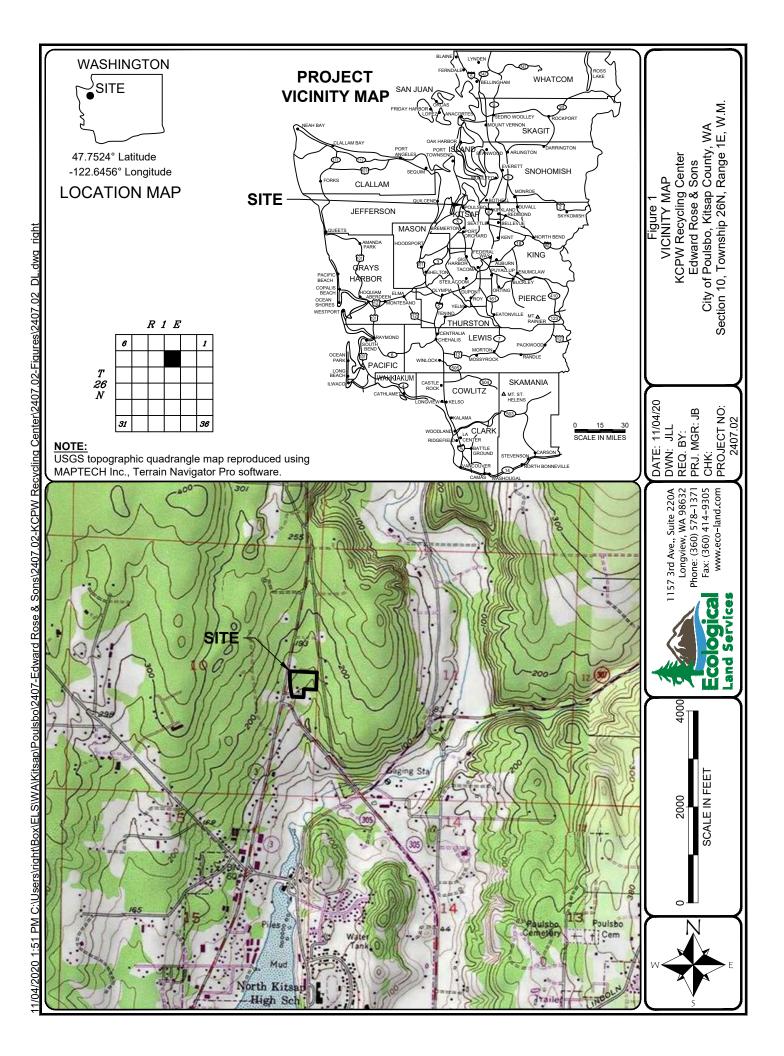
The old recycling center property, which is composed of a large gravel area and a stormwater pond, is situated just west of the stream. The east edge of the stormwater pond lies within the 75-foot stream buffer. The recycling center pond is an existing feature that is regularly maintained and does not function as part of the forested buffer. The fence around the pond further interrupts the buffer function by creating a vertical barrier that prevents human intrusion but also prevents use of the upland and stream by local wildlife species. Therefore, the functional portion of the buffer ends at the chain link fence. Development will be proposed for the recycling center property in the future and it will utilize the existing gravel pad and stormwater pond. Because the pond and fence will remain in place, they function to prevent future detrimental impacts of future development on the former recycling center property. The interrupted buffer is partially vegetated with blackberry thickets (Photoplate 5), which will be removed to install native plants as part of the habitat management plan mitigation.

LIMITATIONS

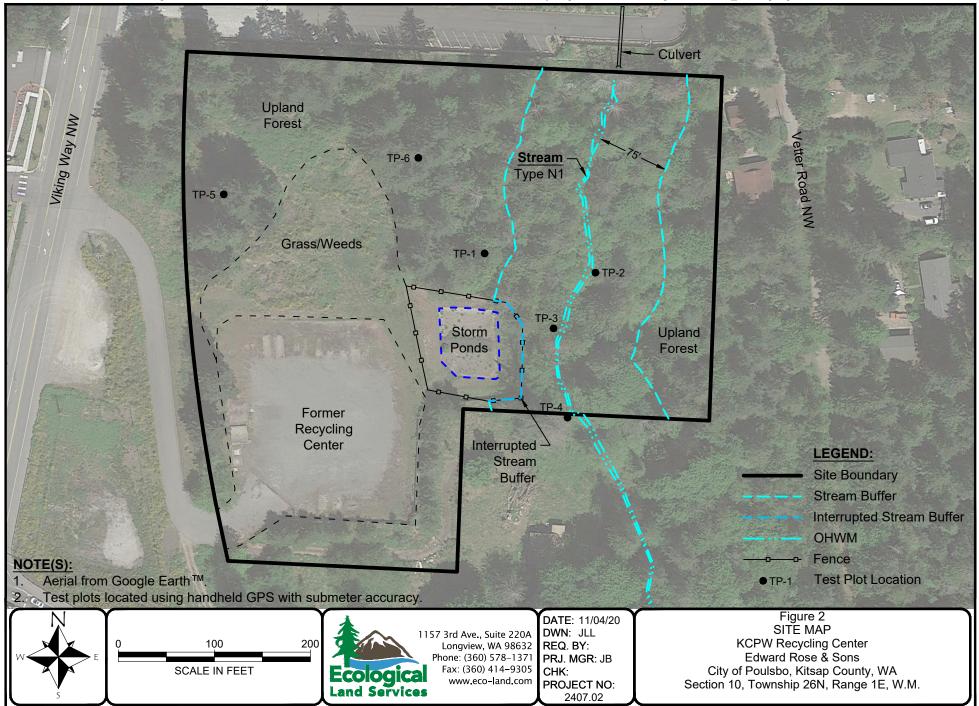
ELS bases this report's determinations on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with our determinations. However, the information contained in this report should be considered preliminary and used at 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.

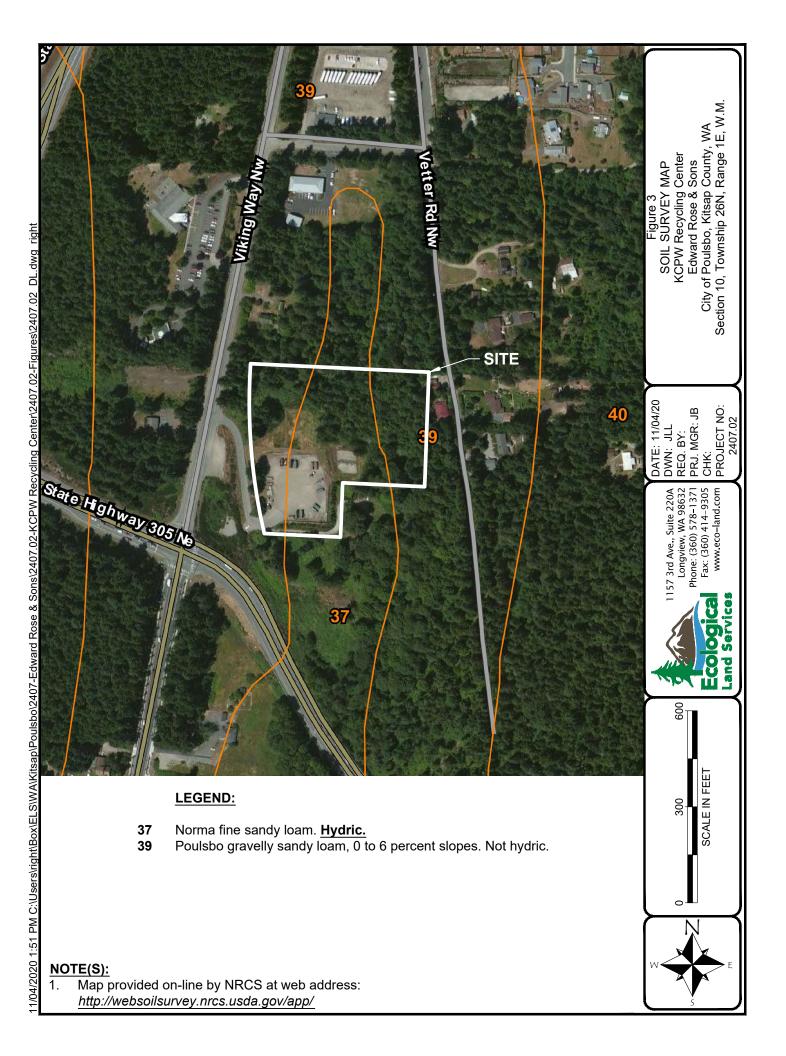
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U.S. Army Corps of Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Kitsap County. Critical Areas Inventory Parcel Search Website. <u>https://psearch.kitsapgov.com/psearch/</u>. Website accessed June 2016 (link updated April 2020).
- Natural Resource Conservation Service (NRCS). 2012. *Web Soil Survey;* WA015 Kitsap County Area. Online document <<u>https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm</u>>. Website accessed June 2016 (link updated April 2020).
- U.S. Army Corps of Engineers (USACE). 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0),* ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-13. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- U.S. Fish & Wildlife Service. 2012. National Wetlands Inventory. Online document <<u>https://www.fws.gov/wetlands/Data/Mapper.html</u>>. Website accessed June 2016 (link updated April 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.

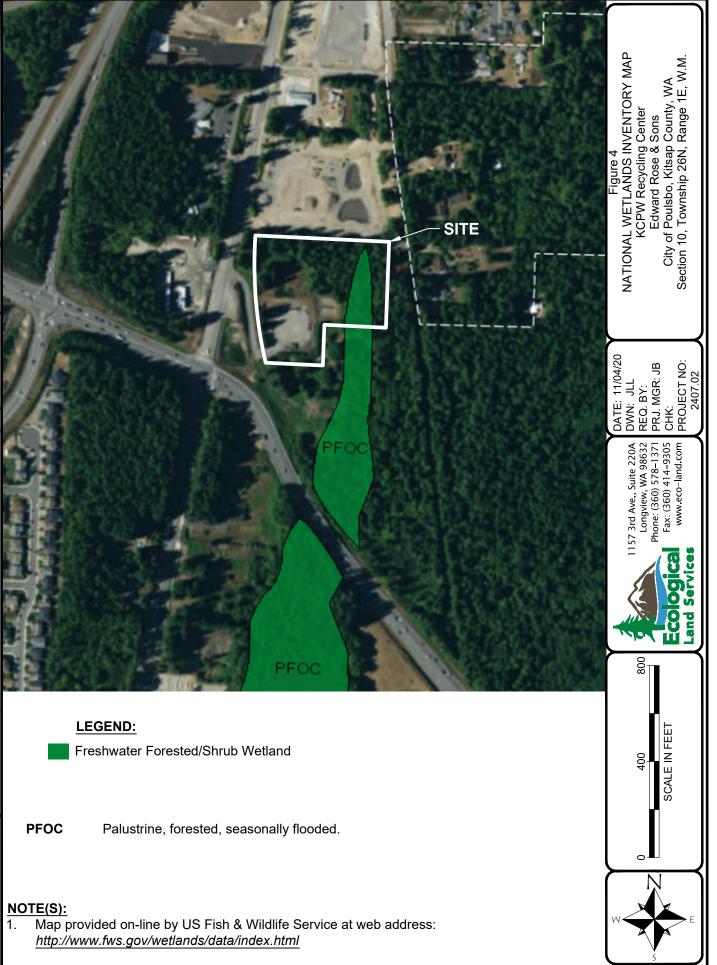
FIGURES & PHOTOPLATES



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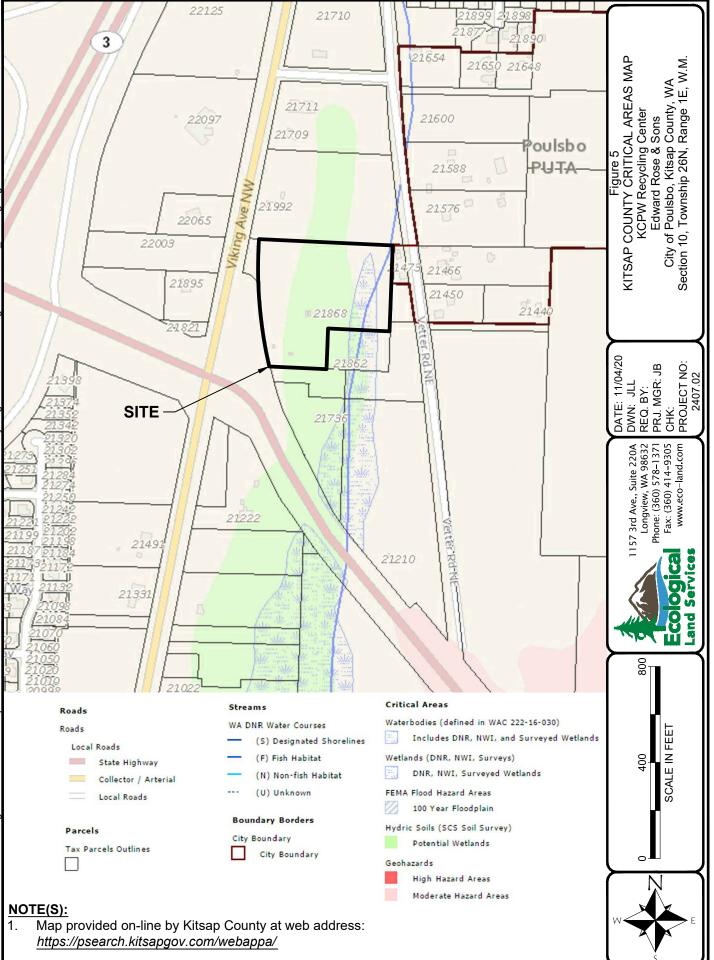




Photo 1 was taken looking east from the gravel pad of the former recycling center. It shows the stormwater ponds that interrupts the function of the western stream buffer.

Photo 2 was taken from the same location as Photo 1 and looks southeasterly. The fence continues along the east edge of the gravel pad and around the south end of the property.

Photo 3 was taken from the south end of the existing stormwater ponds. The 75-foot stream buffer is interrupted by the fence and ponds. The blackberry coverage within the interrupted buffer will be removed and replaced with native plants as part of the mitigation plan.

Ecological Land Services

1157 3rd Ave., Suite 220A Longview, WA 98632 (360) 578-1371 Fax: (360) 414-9305 DATE: 11/4/20 DWN: JB PRJ. MGR JB PROJ.#: 2407.02 Photoplate 1 Project Name: KCPW Recycling Center Client: Ed Rose & Sons LLC Kitsap County, Washington



Photo 4 was taken in the upland forest north of the open grassy portion of the property. It looks west towards an example of the vegetation on the north half of the property.

Photo 5 was taken from the same location as Photo 4 facing south. It demonstrates an even aged stand of conifer trees with a relatively bare understory.

Photo 6 was taken from the same location as Photos 4 and 5. It looks at deciduous stands with upland understory vegetation.



Fax: (360) 414-9305

DATE: 11/4/20 DWN: JB PRJ. MGR JB PROJ.#: 2407.02

Photoplate 2 Project Name: KCPW Recycling Center Client: Ed Rose & Sons LLC Kitsap County, Washington



Photo 7 was taken of the area where Test Plot 1 was conducted. It was located about halfway between the open grassy area and the Type N1 stream in the upland forest.

Photo 8 was taken of the area Test Plot 2 where was conducted. It was located on the east side of the Type N1 stream. There was no evidence to indicate wetland indicators in this area.

Photo 9 was taken in July 2016 of the area where Test Plot 3 was conducted. This area is a designated stream per WDFW and the Suquamish Tribe as of June 2020. There were no wetlands present in 2016 or 2020.

Land Services

(360) 578-1371 Fax: (360) 414-9305

DATE: 11/4/20 DWN: JB PRJ. MGR JB PROJ.#: 2407.02

Photoplate 3 Project Name: KCPW Recycling Center Client: Ed Rose & Sons LLC Kitsap County, Washington



Photo 10 was taken of the northern portion of the Type N1 stream just downstream of the discharge from the transit center pipe. Several trees have died in this location due to the sudden increases in discharge to the stream from offsite stormwater ponds.

Photo 11 was taken from a point south of Photo 10 and shows another section of the stream where there is a defined channel.

Photo 12 was taken of the stream channel during the June 2020 site visit. This section is one of the wide swale like locations where water seems to sheet flow rather than create a defined channel.

DATE: 11/4/20 DWN: JB PRJ. MGR JB PROJ.#: 2407.02

Photoplate 4 Project Name: KCPW Recycling Center Client: Ed Rose & Sons LLC Kitsap County, Washington



Photo 13 was taken along the south end of the onsite section of the stream channel. This area is slightly channelized and did not contain water during the OHWM delineation visit in June 2020.

Photo 14 was taken of the area where Test Plot 5 was conducted. It was near the west property line and represented the upland forest west of the grassy, open area.

Photo 15 was taken of the area where Test Plot 6 was conducted. It was located east of the open grassy area in the upland forest. This area was located just west of the mapped hydric soil and data revealed there were positive no indicators for any of the three wetland parameters.



157 3rd Ave., Suite 220A Longview, WA 98632 (360) 578-1371 Fax: (360) 414-9305

DATE: 11/4/20 DWN: JB PRJ. MGR JB PROJ.#: 2407.02 Photoplate 5 Project Name: KCPW Recycling Center Client: Ed Rose & Sons LLC Kitsap County, Washington

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

Project Site:	KCPW R	ecyclin	<u>g Center</u>			C	ity/County:	Poul	sbo/Kitsa	<u>ap</u>	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>	
Applicant/Owner:	Edward F	lose a	nd Sons						St	tate: <u>WA</u>	Sampling F	Point:	<u>TP</u>	1	
Investigator(s):	J. Bartlett	<u>.</u>						Se	ection, To	ownship, Ran	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.)	: <u>T</u>	errace			Local relie	ef (concave	e, conve	x, none)	: <u>concave</u>		Slop	be (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2			Lat	47.758314			Long:	-122.65	<u>0416</u>		Datum:	Google	Eart	<u>n</u>
Soil Map Unit Name:	39 Poul	sbo gra	avelly sandy loa	m, 0-69	6 slopes					NWI clas	sification:	UPL			
Are climatic / hydrologi	c conditior	ns on t	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		f no, explain	in Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	significantly dis	sturbed?	Are "No	rmal Ci	cumstan	ices" present	?	Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally proble	ematic?	(If need	ed, exp	ain any a	answers in R	emarks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
Remarks: Most of this property has been developed into	the lo	مع احد	untv re	ocyclin	a center which occupies the southwest quarter	The remainder is o	omnos	ad of	

emarks: Most of this property has been developed into the local county recycling center, which occupies the southwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 1 is located in the upland forest northeast of the recycling center.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
 <u>Thuja plicata</u> 2. 	<u>15</u>	<u>yes</u>	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u>	(A)
3 4	_	_	_	Total Number of Dominant Species Across All Strata:	<u>6</u>	(B)
50% = <u>7.5,</u> 20% = <u>3</u> <u>Sapling/Shrub Stratum</u> (Plot size: <u>20' diameter</u>)	<u>15</u>	= Total Cov	er	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>17</u>	(A/B
1. <u>Vaccinium ovatum</u>	<u>35</u>	<u>ves</u>	FACU	Prevalence Index worksheet:		
2. <u>Gaultheria shallon</u>	<u>20</u>	yes	FACU	Total % Cover of:	Multiply by:	
3. <u>Vaccinium parvifolium</u>	<u>5</u>	no	FACU	OBL species	x1 =	_
4				FACW species	x2 =	
5				FAC species	x3 =	
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u>	= Total Cov	er	FACU species	x4 =	_
<u>Herb Stratum (</u> Plot size: <u>10' diameter</u>)				UPL species	x5 =	_
1. <u>Polystichum munitum</u>	<u>20</u>	yes	FACU	Column Totals:(A)		(B)
2. <u>Rubus ursinus</u>	<u>5</u>	ves	FACU	Prevalence Index =	B/A =	
3				Hydrophytic Vegetation Indicators:		
4				1 – Rapid Test for Hydrophytic Ve	egetation	
5				□ 2 - Dominance Test is >50%		
6				\Box 3 - Prevalence Index is <3.0 ¹		
7 8				4 - Morphological Adaptations ¹ (F data in Remarks or on a separ		
9				5 - Wetland Non-Vascular Plants	1	
10		_		Problematic Hydrophytic Vegetati	ion ¹ (Explain)	
11 50% = <u>12.5</u> , 20% = <u>5</u>	25	= Total Cov	er	¹ Indicators of hydric soil and wetland hy be present, unless disturbed or problen		
Woody Vine Stratum (Plot size:)						
1						
2				Hydrophytic Vegetation Yes	□ No	
50% =, 20% =		= Total Cov	er	Present?		
% Bare Ground in Herb Stratum 75						

Project Site: KCPW Recycling Center

SOII

SOI	L										Samplin	g Point: <u>TP</u>	1		
Profi	le Descr	iption: (Describe t	o the dept	n needed to d	locument the	e indicat	or or confi	rm the absend	ce of	indicato	ors.)				
D	epth	Matrix			R	edox Fea	itures								
(inch	ies)	Color (moist)	%	Color (mo	oist)	%	Type ¹	Loc ²		Texture			Remarks	;	
	0-7	<u>10YR 3/2</u>	100							<u>gr sa loa</u>	<u>am</u>	-			
7	<u>′-16</u>	<u>10YR 5/3</u>	<u>100</u>							<u>gr sa loa</u>	<u>am</u>	-			
_												-			
_												-			
												-			
												-			
												-			
												-			
¹Туре	e: C= Co	ncentration, D=Dep	letion, RM=	Reduced Mat	rix, CS=Cove	red or Co	bated Sand	Grains. ²	² Loca	tion: PL=	Pore Lining,	M=Matrix, F	RC=Root	Channel	
Hydr	ic Soil Ir	dicators: (Applica	ble to all L	RRs, unless	otherwise n	oted.)				Indic	ators for Pr	oblematic I	Hydric S	oils³:	
	Histoso	(A1)			Sandy Red	lox (S5)					2 cm Mucl	(A10)			
	Histic E	pipedon (A2)			Stripped M	atrix (S6))				Red Parer	nt Material (TF2)		
	Black H	istic (A3)			Loamy Mu	cky Miner	ral (F1) (ex	cept MLRA 1))		Very Shall	ow Dark Su	rface (TF	12)	
	Hydroge	en Sulfide (A4)			Loamy Gle	yed Matr	ix (F2)				Other (Exp	lain in Rem	arks)		
	Deplete	d Below Dark Surfa	ce (A11)		Depleted N	/latrix (F3	5)								
	Thick D	ark Surface (A12)			Redox Dar	k Surface	e (F6)								
	Sandy M	/lucky Mineral (S1)			Depleted D	Dark Surfa	ace (F7)				cators of hyd etland hydrol				
	Sandy (Bleyed Matrix (S4)			Redox Dep	pressions	(F8)				nless disturbe			.,	
Rest	rictive L	ayer (if present):													
Туре	:														
Dept	h (inches):						Hydric Soils	s Pres	sent?		Yes		No	\boxtimes
Rema	arks:	The soil profile mee	ets none of	the hydric soil	indicators be	cause of	the high so	oil matrix chrom	nas.						

HYDROLOGY

Wetl	and Hydrology Indica	tors:											
Prima	ary Indicators (minimur	n of one r	equired	; check	all tha	t apply)		Sec	ondary Indicators (2 or r	more requir	red)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2	2)				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	10)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (E	32)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Ro	oots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B	4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3))			
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C	6)		FAC-Neutral Test (D5	5)			
	Surface Soil Cracks (B6)				Stunted or Stresses Plants (D1) (LRR /	A)		Raised Ant Mounds ([D6) (LRR A)		
	Inundation Visible on	Aerial Im	agery (B7)		Other (Explain in Remarks)			Frost-Heave Hummoo	cks (D7)			
	Sparsely Vegetated (Concave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ration Present? Ides capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetla	nd Hy	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (st	ream gau	ige, mo	nitoring	well, a	aerial photos, previous inspections), if ava	ilable:						
Rem	arks: Hydrology wa	as not pre	sent an	d there	was n	o evidence of wetland hydrology.							

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

Project Site:	KCPW R	ecyclin	ig Center			Ci	ty/County:	Poul	sbo/Kit	sap	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>	
Applicant/Owner:	Edward F	Rose a	nd Sons							State: <u>WA</u>	Sampling F	Point:	<u>TP 2</u>	2	
Investigator(s):	J. Bartlet	<u>t</u>						Se	ection,	Township, Rang	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.)): <u>T</u>	errace			Local relie	ef (concave	, conve	x, non	e): <u>concave</u>		Slop	e (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2	2		Lat	47.758313			Long:	<u>-122.6</u>	<u>550077</u>		Datum:	Google	Eart	<u>h</u>
Soil Map Unit Name:	37 Norn	na fine	sandy loam							NWI class	sification:	UPL			
Are climatic / hydrologi	c conditio	ns on t	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, :	significantly di	isturbed?	Are "Nor	mal Cir	cumsta	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□ , ı	naturally probl	lematic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
Remarks: Most of this property has been developed in	to the lo	cal co	unty r	ecyclin	g center, which occupies the southwest quarter. The remain	inder is c	ompo	sed of	

side of the property. Test Plot 2 is located in the upland forest east of the recycling center, which occupies the Souriwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 2 is located in the upland forest east of the recycling center along the Type N1 stream to verify the absence of wetland conditions.

VEGETATION – Use scientific names of plants Absolute Dominant Indicator Tree Stratum (Plot size: 30' diameter) Dominance Test Worksheet: % Cover Species? Status 8 1 1. Acer macrophyllum FACU <u>15</u> yes Number of Dominant Species 1 (A) That Are OBL, FACW, or FAC: 2. _____ 3. _____ Total Number of Dominant 3 (B) 4. Species Across All Strata: 50% = <u>7.5</u>, 20% = <u>3</u> = Total Cover 15 Percent of Dominant Species (A/B) <u>33</u> That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 20' diameter) 1. Rubus spectabilis FAC Prevalence Index worksheet: 15 yes 2. Total % Cover of: Multiply by: 3. _____ **OBL** species x1 = FACW species 4. _____ x2 = 5. FAC species x3 = $50\% = \underline{7.5}, 20\% = \underline{3}$ 15 = Total Cover FACU species x4 = Herb Stratum (Plot size: 10' diameter) UPL species x5 = 1. Polystichum munitum 50 FACU yes Column Totals: (A) (B) 2. Tellima grandiflora 10 FACU Prevalence Index = B/A = no 3. Hydrophytic Vegetation Indicators: 1 – Rapid Test for Hydrophytic Vegetation 4. _____ 5. 2 - Dominance Test is >50% 6. 3 - Prevalence Index is <3.01 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. 9. 5 - Wetland Non-Vascular Plants¹ 10. _____ Problematic Hydrophytic Vegetation¹ (Explain) 11. _____ ¹Indicators of hydric soil and wetland hydrology must 50% = <u>30</u>, 20% = <u>12</u> 60 = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 1. _____ Hydrophytic 2. Vegetation Yes No \boxtimes 50% = ____, 20% = ____ = Total Cover Present? % Bare Ground in Herb Stratum 40 The hydrophytic vegetation criterion is not met because there is less than 50% dominance by FAC species. Remarks:

Project Site: KCPW Recycling Center

SOII

SOI	L								Sampling	Point: TP	2		
Profi	le Desci	iption: (Describe t	o the depth	n needed to d	locument the inc	licator or confi	m the absence	e of indicato	ors.)				
D	epth	Matrix			Redox	Features							
(inch	ies)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture			Remarks		
<u>0</u>)-10	<u>10YR 3/2</u>	100					<u>gr sa loa</u>	<u>im</u>				
<u>1</u> (<u>0-16</u>	<u>10YR 4/3</u>	<u>100</u>					<u>gr sa loa</u>	<u>ım</u>				
_									<u></u>				
_									<u></u>				
					·								
					·								
					· <u> </u>								
					· <u> </u>								
1Туре	e: C= Co	ncentration, D=Dep	etion, RM=	Reduced Mat	rix, CS=Covered	or Coated Sand	Grains. ² Lo	ocation: PL=	Pore Lining, I	M=Matrix, F	RC=Root	Channel	
Hydr	ic Soil lı	ndicators: (Applica	ble to all L	RRs, unless	otherwise noted	.)		Indic	ators for Pro	blematic H	lydric S	oils³:	
	Histoso	I (A1)			Sandy Redox (S5)			2 cm Muck	(A10)			
	Histic E	pipedon (A2)			Stripped Matrix	(S6)			Red Parent	Material (ΓF2)		
	Black H	istic (A3)			Loamy Mucky I	Mineral (F1) (exc	ept MLRA 1)		Very Shallo	w Dark Su	rface (TF	12)	
	Hydrog	en Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other (Expl	ain in Rem	arks)		
	Deplete	d Below Dark Surfa	ce (A11)		Depleted Matrix	x (F3)							
	Thick D	ark Surface (A12)			Redox Dark Su	ırface (F6)							
	Sandy I	Mucky Mineral (S1)			Depleted Dark	Surface (F7)			cators of hydro etland hydrolo				
	Sandy (Gleyed Matrix (S4)			Redox Depress	sions (F8)			nless disturbe			.,	
Rest	rictive L	ayer (if present):											
Туре	:	<u> </u>											
Dept	h (inches	.): <u> </u>					Hydric Soils P	Present?		Yes		No	\boxtimes
Rema	arks:	The soil profile mee	ts none of t	the hydric soil	indicators becaus	se of the high so	il matrix chroma	as.					

HYDROLOGY

Wetl	and Hydrology Indica	tors:											
Prima	ary Indicators (minimun	n of one r	equired	; check	all tha	t apply)		Sec	ondary Indicators (2 or r	more requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	s (B9)			
	High Water Table (A2	2)				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	10)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Ta	ble (C2)			
	Sediment Deposits (E	32)				Hydrogen Sulfide Odor (C1)			Saturation Visible on	Aerial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Roc	ots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B	4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3))			
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C6	6)		FAC-Neutral Test (D5)			
	Surface Soil Cracks (B6)				Stunted or Stresses Plants (D1) (LRR A)		Raised Ant Mounds (I	D6) (LRR A)		
	Inundation Visible on	Aerial Im	agery (B7)		Other (Explain in Remarks)			Frost-Heave Hummoo	:ks (D7)			
	Sparsely Vegetated C	Concave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present?	Yes		No	\boxtimes	Depth (inches):	Wetla	nd Hy	drology Present?	Yes		No	
Desc	ribe Recorded Data (st	ream gau	ige, mo	nitoring	well, a	aerial photos, previous inspections), if avail	able:						
Rem	arks: Hydrology wa the swale like				was ne	o evidence of wetland hydrology. There is	evidence	of terr	porary water flow during	g the winte	r mont	hs with	in the

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

Project Site:	KCPW R	ecyclir	ng Center			Ci	ty/County:	Poul	sbo/Kit	sap	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>	
Applicant/Owner:	Edward F	Rose a	nd Sons							State: <u>WA</u>	Sampling F	oint:	<u>TP 3</u>	<u>3</u>	
Investigator(s):	J. Bartlet	<u>t</u>						Se	ection,	Township, Rang	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.)): <u>T</u>	errace			Local relie	ef (concave	, conve	x, non	e): <u>concave</u>		Slop	e (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2	2		Lat:	47.758108			Long:	-122.6	649986		Datum:	Google	Eartl	<u>h</u>
Soil Map Unit Name:	37 Norn	na fine	sandy loam							NWI class	sification:	UPL			
Are climatic / hydrologi	c conditio	ns on t	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, :	significantly di	sturbed?	Are "Nor	mal Cir	cumsta	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, ı	naturally probl	lematic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes								
Hydric Soil Present?	Yes		No	\boxtimes	Is the Sampled Area within a Wetland?	Yes		No	\boxtimes			
Wetland Hydrology Present?	Yes		No	\boxtimes								
Remarks: Most of this property has been developed into the local county recycling center, which occupies the southwest guarter. The remainder is composed of												

Intervention of this property has been developed into the local county recycling center, which occupies the sourtwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 3 is located in the upland forest east of the recycling center along the Type N1 stream to verify absence of wetland conditions.

VEGETATION – Use scientific names of plants Absolute Indicator Dominant Tree Stratum (Plot size: 30' diameter) Dominance Test Worksheet: % Cover Species? Status 8 1 FACU 1. Acer macrophyllum <u>15</u> yes Number of Dominant Species 3 (A) That Are OBL, FACW, or FAC: 2. Thuja plicata <u>10</u> FAC ves 3. Total Number of Dominant 7 (B) 4. _ Species Across All Strata: 50% = <u>12.5</u>, 20% = <u>5</u> = Total Cover 25 Percent of Dominant Species (A/B) <u>43</u> That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 20' diameter) 1. Oemleria cerasiformis 35 FACU Prevalence Index worksheet: yes 2. Rubus spectabilis 10 <u>yes</u> FAC Total % Cover of: Multiply by: 3. _____ OBL species x1 = FACW species 4. _____ x2 = 5. FAC species x3 = 50% = <u>22.5</u>, 20% = <u>9</u> = Total Cover FACU species x4 = 45 Herb Stratum (Plot size: 10' diameter) UPL species x5 = FACU 1. Polystichum munitum 20 ves Column Totals: (A) (B) 2. Rubus ursinus 15 FACU Prevalence Index = B/A = ves 3. Ranunculus repens 15 FAC Hydrophytic Vegetation Indicators: <u>yes</u> 4. Circaea alpina 5 no FAC □ 1 – Rapid Test for Hydrophytic Vegetation 5. Pteridium aquilinum 5 FACU 2 - Dominance Test is >50% no 6. 3 - Prevalence Index is <3.01 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. 5 - Wetland Non-Vascular Plants¹ 9. 10. Problematic Hydrophytic Vegetation¹ (Explain) 11. _____ ¹Indicators of hydric soil and wetland hydrology must 50% = <u>30</u>, 20% = <u>12</u> 60 = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 1. _____ Hydrophytic 2. Vegetation Yes No \boxtimes 50% = ____, 20% = ____ = Total Cover Present? % Bare Ground in Herb Stratum 40 The hydrophytic vegetation criterion is not met because there is less than 50% dominance by FAC species. Remarks:

Project Site: KCPW Recycling Center

SOII

SOI	L								Sampling	Point: TP	3		
Profi	le Desci	iption: (Describe t	o the depth	n needed to d	locument the inc	dicator or confi	m the absence	e of indicato	ors.)				
D	epth	Matrix			Redox	Features		_					
(inch	ies)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture			Remarks		
<u>0</u>)-12	<u>10YR 2/2</u>	100					<u>gr sa loa</u>	<u>im</u>				
1	<u>2-16</u>	<u>10YR 3/3</u>	<u>100</u>					<u>gr sa loa</u>	<u>ım</u>				
_									<u></u>				
_									<u></u>				
1Туре	e: C= Co	ncentration, D=Dep	etion, RM=	Reduced Mat	rix, CS=Covered	or Coated Sand	Grains. ² Lo	ocation: PL=	Pore Lining, I	M=Matrix, F	RC=Root	Channel	
Hydr	ic Soil lı	ndicators: (Applica	ble to all L	RRs, unless	otherwise noted	l.)		Indic	ators for Pro	blematic H	lydric S	oils³:	
	Histoso	I (A1)			Sandy Redox (S5)			2 cm Muck	(A10)			
	Histic E	pipedon (A2)			Stripped Matrix	(S6)			Red Parent	Material (ΓF2)		
	Black H	istic (A3)			Loamy Mucky I	Mineral (F1) (ex	cept MLRA 1)		Very Shallo	w Dark Su	rface (TF	12)	
	Hydrog	en Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other (Expl	ain in Rem	arks)		
	Deplete	d Below Dark Surfa	ce (A11)		Depleted Matrix	x (F3)							
	Thick D	ark Surface (A12)			Redox Dark Su	urface (F6)							
	Sandy I	Mucky Mineral (S1)			Depleted Dark	Surface (F7)			cators of hydro etland hydrolo				
	Sandy (Gleyed Matrix (S4)			Redox Depress	sions (F8)			nless disturbe			,	
Rest	rictive L	ayer (if present):											
Туре	:												
Dept	h (inches):					Hydric Soils P	Present?		Yes		No	\boxtimes
Rema	arks:	The soil profile mee	ts none of t	the hydric soil	indicators becaus	se of the high so	il matrix chroma	as.					

HYDROLOGY

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one r	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or m	ore requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	(B9)			
	High Water Table (A2)				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and 4	В)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B10))			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Tab	le (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	erial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Roots	s (C3)		Geomorphic Position (02)			
	Algal Mat or Crust (B4	l)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C6)			FAC-Neutral Test (D5)				
	Surface Soil Cracks (I	36)				Stunted or Stresses Plants (D1) (LRR A)			Raised Ant Mounds (De	6) (LRR A	.)		
	Inundation Visible on	Aerial Im	agery (I	37)		Other (Explain in Remarks)			Frost-Heave Hummock	s (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlar	nd Hye	drology Present?	Yes		No	
Desc	ribe Recorded Data (str	eam gau	ge, moi	nitoring	well, a	erial photos, previous inspections), if availa	ble:						
Rem	arks: Hydrology wa the wide swal				was no	o evidence of wetland hydrology. There was	s evideno	ce of te	emporary water flow durin	ng the win	iter mo	nths w	ithin

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

Project Site:	KCPW R	ecyclir	ig Center			С	ity/County:	Poul	sbo/Ki	tsap	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>	
Applicant/Owner:	Edward F	Rose a	nd Sons							State: WA	Sampling F	Point:	<u>TP</u>	<u>1</u>	
Investigator(s):	J. Bartlet	<u>t</u>						Se	ection,	Township, Rang	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.): <u>T</u>	errace			Local relie	ef (concave	, conve	x, non	e): <u>concave</u>		Slop	e (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2	2		Lat	47.575794			Long:	<u>-122.</u>	<u>649767</u>		Datum:	Google	Eartl	<u>h</u>
Soil Map Unit Name:	37 Norr	na fine	sandy loam							NWI class	sification:	UPL			
Are climatic / hydrologi	c conditio	ns on t	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, :	significantly di	isturbed?	Are "Nor	mal Cir	cumst	ances" present?	•	Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□ , ı	naturally probl	lematic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
Remarks: Most of this property has been developed into	the lo	ral co	untv re	ocyclin	a center which occupies the southwest quarter. The remain	inder is c	omnos	ed of	

Emarks: Most of this property has been developed into the local county recycling center, which occupies the southwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 4 is located in the upland forest east of the recycling center along the stream to verify the absence of wetland conditions.

VEGETATION – Use scientific names of plants

2.	Tree Stratum (Plot size: 30' diameter)	Absolute <u>% Cover</u>	Dominant Species?	Indicator <u>Status</u>	Dominance Test Worksheet:		
4.			_			2	(A)
Saping/Shrub Stratum (Plot size: 20' diameter) That Are OBL, FACW, or FAC: 40 (A 1. <u>Demleria cerasiformis</u> 35 ves FACU Prevalence Index worksheet: 2. Rubus speciabilis 5 no FAC Total % Cover of: Multiply by: 3				_		<u>5</u>	(B)
1. Omiletia cerasiformis 35 yes FACU 2. Rubus spectabilis 5 no FAC Total % Cover of: Multiply by: 3.			= Total Cov	er		<u>40</u>	(A/B)
2. Rubus spectabilis 5 no FAC Total % Cover of: Multiply by: 3.		35	ves	FACU	Prevalence Index worksheet:		
4.	2. <u>Rubus spectabilis</u>		-		Total % Cover of:	Multiply by:	
4.	3				OBL species	x1 =	_
50% = 205, 20% = 8 40 = Total Cover FACU species x4 =					FACW species	x2 =	_
Herb Stratum (Plot size: 10' diameter) UPL species x5 = 1. Rubus ursinus 15 yes FACU Column Totals: (A) (B) 2. Tellima grandiflora 10 yes FACU Prevalence Index = B/A =	5				FAC species	x3 =	_
1. Rubus ursinus 15 yes FACU Column Totals:(A)(B) 2. Tellima grandiflora 10 yes FACU Prevalence Index = B/A = 3. Athyrium cyclosorum 10 yes FAC Hydrophytic Vegetation Indicators:	50% = <u>205</u> , 20% = <u>8</u>	<u>40</u>	= Total Cov	er	FACU species	x4 =	_
2. Tellima grandifora10yesFACUPrevalence Index = B/A =3. Athyrium cyclosorum10yesFACHydrophytic Vegetation Indicators:4. Carex deweyana10yesFAC1 - Rapid Test for Hydrophytic Vegetation5. Pteridium aquilinum5noFACU2 - Dominance Test is >50%6. Polystichum munitum5noFACU3 - Prevalence Index is $\leq 3.0^{1}$ 7	Herb Stratum (Plot size: 10' diameter)				UPL species	x5 =	_
3. Athyrium cyclosorum 10 yes FAC Hydrophytic Vegetation Indicators: 4. Carex deweyana 10 yes FAC 1 - Rapid Test for Hydrophytic Vegetation 5. Pteridium aquilinum 5 no EACU 2 - Dominance Test is >50% 6. Polystichum munitum 5 no EACU 3 - Prevalence Index is $\leq 3.0^1$ 7	1. <u>Rubus ursinus</u>	<u>15</u>	ves	FACU	Column Totals:(A)		(B)
4. Carex deweyana 10 yes FAC 1 - Rapid Test for Hydrophytic Vegetation 5. Pteridium aquilinum 5 no FACU 2 - Dominance Test is >50% 6. Polystichum munitum 5 no FACU 3 - Prevalence Index is ≤3.01 7	2. <u>Tellima grandiflora</u>	<u>10</u>	<u>ves</u>	FACU	Prevalence Index = B/A	=	
5. Pteridium aquilinum 5 no FACU 2 - Dominance Test is >50% 6. Polystichum munitum 5 no FACU 3 - Prevalence Index is $\leq 3.0^1$ 7 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 9 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 9	3. Athyrium cyclosorum	<u>10</u>	yes	FAC	Hydrophytic Vegetation Indicators:		
6. Polystichum munitum 5 no FACU 3 - Prevalence Index is $\leq 3.0^1$ 7.	4. <u>Carex deweyana</u>	<u>10</u>	yes	FAC	1 – Rapid Test for Hydrophytic Veget	tation	
7.	5. <u>Pteridium aquilinum</u>	<u>5</u>	no	FACU	□ 2 - Dominance Test is >50%		
8	6. Polystichum munitum	<u>5</u>	<u>no</u>	FACU	\Box 3 - Prevalence Index is $\leq 3.0^1$		
9							
10.					5 - Wetland Non-Vascular Plants ¹		
11 55 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 50% = 27.5, 20% = 11 55 = Total Cover 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1					Problematic Hydrophytic Vegetation ¹	(Explain)	
50% = 27.5, 20% = 11 55 = Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size:)	11					()	
Woody Vine Stratum (Plot size:)	50% = <u>27.5</u> , 20% = <u>11</u>	55	= Total Cov	er			
2 Hydrophytic 50% =, 20% = = Total Cover Yes No Present?	Woody Vine Stratum (Plot size:)				be present, unless disturbed of problematic		
2.							
50% =, 20% = = Total Cover Present?	2						_
	50% =, 20% =		= Total Cov	er	-	L No	\boxtimes
% Bare Ground in Herb Stratum <u>40</u>	% Bare Ground in Herb Stratum 40						

Project Site: KCPW Recycling Center

SOII

SOI	L								Sampling	Point: <u>TP</u>	4		
Profi	le Desci	iption: (Describe t	o the depth	n needed to d	locument the inc	dicator or confi	rm the absence	e of indicato	ors.)				
D	epth	Matrix			Redox	Features							
(inch	ies)	Color (moist)	%	Color (mo	oist) %	Type ¹	Loc ²	Texture			Remarks		
<u>0</u>)-10	<u>10YR 2/2</u>	100					<u>gr sa loa</u>	<u>im</u>				
<u>1</u> (<u>0-16</u>	<u>10YR 4/3</u>	<u>100</u>					<u>gr sa loa</u>	<u>ım</u>				
_													
_													
									·				
									·				
1Туре	e: C= Co	ncentration, D=Dep	letion, RM=	Reduced Mat	rix, CS=Covered	or Coated Sand	Grains. ² Lo	ocation: PL=	Pore Lining, I	M=Matrix, F	RC=Root	Channel	
Hydr	ic Soil lı	ndicators: (Applica	ble to all L	RRs, unless	otherwise noted	.)		Indic	ators for Pro	blematic l	lydric S	oils³:	
	Histoso	I (A1)			Sandy Redox (S5)			2 cm Muck	(A10)			
	Histic E	pipedon (A2)			Stripped Matrix	: (S6)			Red Parent	t Material (ΓF2)		
	Black H	istic (A3)			Loamy Mucky I	Mineral (F1) (ex	cept MLRA 1)		Very Shallo	ow Dark Su	rface (TF	12)	
	Hydrog	en Sulfide (A4)			Loamy Gleyed	Matrix (F2)			Other (Exp	lain in Rem	arks)		
	Deplete	d Below Dark Surfa	ce (A11)		Depleted Matrix	x (F3)							
	Thick D	ark Surface (A12)			Redox Dark Su	Irface (F6)							
	Sandy I	Mucky Mineral (S1)			Depleted Dark	Surface (F7)			cators of hydro etland hydrolo				
	Sandy (Gleyed Matrix (S4)			Redox Depress	sions (F8)			nless disturbe			,	
Rest	rictive L	ayer (if present):											
Туре	:												
Dept	h (inches):					Hydric Soils P	Present?		Yes		No	\boxtimes
Rema	arks:	The soil profile mee	ets none of t	the hydric soil	indicators becaus	se of the high so	il matrix chroma	as.					

HYDROLOGY

Wetla	and Hydrology Indicat	ors:											
Prima	ary Indicators (minimum	of one r	equired	; check	all that	t apply)		Sec	ondary Indicators (2 or m	nore requir	ed)		
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves	(B9)			
	High Water Table (A2)				(except MLRA 1, 2, 4A, and 4B)			(MLRA 1, 2, 4A, and 4	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B1	0)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Tat	ole (C2)			
	Sediment Deposits (B	2)				Hydrogen Sulfide Odor (C1)			Saturation Visible on A	erial Imag	ery (C	9)	
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Roots	s (C3)		Geomorphic Position (D2)			
	Algal Mat or Crust (B4)				Presence of Reduced Iron (C4)			Shallow Aquitard (D3)				
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C6)			FAC-Neutral Test (D5))			
	Surface Soil Cracks (I	36)				Stunted or Stresses Plants (D1) (LRR A)			Raised Ant Mounds (D	6) (LRR A)		
	Inundation Visible on	Aerial Im	agery (I	B7)		Other (Explain in Remarks)			Frost-Heave Hummocl	ks (D7)			
	Sparsely Vegetated C	oncave S	Surface	(B8)									
Field	Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
	ation Present? des capillary fringe)	Yes		No	\boxtimes	Depth (inches):	Wetlar	nd Hy	drology Present?	Yes		No	\boxtimes
Desc	ribe Recorded Data (str	eam gau	ge, mo	nitoring	well, a	erial photos, previous inspections), if availab	ble:						
Rema	arks: Hydrology wa swale like sec					o evidence of wetland hydrology. There is e	vidence	of terr	nporary water flow during	the winte	r montl	ns with	in this
i.													

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

Project Site:	KCPW R	ecyclin	ig Center			Ci	ty/County:	Poul	sbo/Kit	sap	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>	
Applicant/Owner:	Edward F	Rose a	nd Sons							State: <u>WA</u>	Sampling F	Point:	<u>TP 5</u>	5	
Investigator(s):	J. Bartlet	<u>t</u>						Se	ection,	Township, Rang	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.)): <u>T</u>	errace			Local relie	ef (concave	, conve	x, non	e): <u>concave</u>		Slop	e (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2	2		Lat:	47.758528			Long:	-122.6	650609		Datum:	Google	Eartl	<u>h</u>
Soil Map Unit Name:	37 Norn	na fine	sandy loam							NWI class	sification:	UPL			
Are climatic / hydrologi	c conditio	ns on t	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		(If no, explain in	n Remarks.)				
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, :	significantly di	sturbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□, ı	naturally probl	ematic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
Remarks: Most of this property has been developed into	the lo	cal co	untv re	ecvclin	g center, which occupies the southwest guarter. The remain	nder is c	ompos	sed of	

ernarks: Most or this property has been developed into the local county recycling center, which occupies the southwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 5 is located in the upland forest north of the recycling center near the northwest property corner to verify the absence of wetland conditions.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: <u>30' diameter</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. <u>Pseudotsuga menziesii</u>	<u>25</u>	<u>yes</u>	FACU	Number of Dominant Species 0 That Are OBL, FACW, or FAC: 0	(A)
2					
3				Total Number of Dominant Species Across All Strata: 5	(B)
50% = 12.5, 20% = 5	25	= Total Cov	er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 20' diameter)	<u></u>			That Are OBL, FACW, or FAC:	(A/B)
1. <u>Gaultheria shallon</u>	<u>50</u>	yes	FACU	Prevalence Index worksheet:	
2. Vaccinium ovatum	<u>20</u>	yes	FACU	Total % Cover of: Multiply by:	
3. <u>Lonicera ciliosa</u>	<u>15</u>	no	UPL	OBL species x1 =	
4. Rhododendron macrophyllum	<u>10</u>	no	FACU	FACW species x2 =	
5. <u>Rubus armeniacus</u>	<u>10</u>	<u>no</u>	FAC	FAC species x3 =	
50% = <u>52.5</u> , 20% = <u>21</u>	<u>105</u>	= Total Cove	er	FACU species x4 =	
Herb Stratum (Plot size: 10' diameter)				UPL species x5 =	
1. <u>Rubus ursinus</u>	<u>20</u>	yes	FACU	Column Totals:(A)	(B)
2. Polystichum munitum	<u>5</u>	yes	FACU	Prevalence Index = B/A =	
3				Hydrophytic Vegetation Indicators:	
4				1 – Rapid Test for Hydrophytic Vegetation	
5				2 - Dominance Test is >50%	
				\Box 3 - Prevalence Index is <3.0 ¹	
6				\Box 3 - Prevalence index is $\leq 3.0^{\circ}$	
6 7 8				 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	
7				4 - Morphological Adaptations ¹ (Provide supporting	
7				 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 	
7 8 9				 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 	
7 8 9 10	 25	 = Total Cove	 er	 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must 	
7 8 9 10 11	 25	 = Total Cove	 	 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) 	
7 8 9 10 11 50% = <u>12.5</u> , 20% = <u>4</u>	 25	 = Total Cove		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 8 9 10 11 50% = <u>12.5</u> , 20% = <u>4</u> <u>Woody Vine Stratum (Plot size:)</u>	 25	 = Total Cove		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic	
7 8 9 10 11 50% = <u>12.5</u> , 20% = <u>4</u> <u>Woody Vine Stratum</u> (Plot size:) 1	 25	= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7 8 9 10 11 50% = <u>12.5</u> , 20% = <u>4</u> <u>Woody Vine Stratum (Plot size:)</u> 1 2	 			4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants ¹ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Yes No	

Project Site: KCPW Recycling Center

SOII

SOIL									Sampli	ng Point: <u>TP</u>	<u>5</u>		
Profile De	scription: (Describe t	o the deptl	n needed to d	ocument t	he indica	tor or confi	rm the absenc	e of indica	tors.)				
Depth	Matrix				Redox Fe	atures							
(inches)	Color (moist)	%	Color (mo	oist)	%	Type ¹	Loc ²	Textur	9		Remarks	5	
<u>0-5</u>	<u>10YR 3/3</u>	100		-				<u>gr sa lo</u>	am	_			
<u>5-14</u>	<u>10YR 4/3</u>	<u>100</u>		_				<u>gr sa lo</u>	am	_			
<u>14-20</u>	<u>10YR 4/4</u>	100		_				<u>gr sa lo</u>	am				
				_									
				_						_			
				_						_			
				-						_			
				_						_			
¹ Type: C=	Concentration, D=Depl	letion, RM=	Reduced Mati	rix, CS=Cov	vered or C	Coated Sand	Grains. ² L	Location: PL	=Pore Lining	, M=Matrix, I	RC=Root	Channel	
Hydric So	il Indicators: (Applica	ble to all L	RRs, unless	otherwise	noted.)			Ind	icators for P	roblematic	Hydric S	oils³:	
Histo	osol (A1)			Sandy Re	edox (S5)				2 cm Mu	ck (A10)			
Histie	c Epipedon (A2)			Stripped	Matrix (Se	6)			Red Pare	ent Material (TF2)		
Black	k Histic (A3)			Loamy M	ucky Min	eral (F1) (ex	cept MLRA 1)		Very Sha	llow Dark Su	rface (TF	12)	
Hydr	ogen Sulfide (A4)			Loamy G	leyed Ma	trix (F2)			Other (E:	kplain in Rem	narks)		
Depl	eted Below Dark Surfa	ce (A11)		Depleted	Matrix (F	3)							
Thick	k Dark Surface (A12)			Redox D	ark Surfac	ce (F6)							
Sanc	ly Mucky Mineral (S1)			Depleted	Dark Sur	face (F7)				drophytic veg ology must b			
Sanc	ly Gleyed Matrix (S4)			Redox D	epression	s (F8)				blogy must b		ι,	
Restrictive	e Layer (if present):												
Туре:													
Depth (incl	nes):						Hydric Soils	Present?		Yes		No	\boxtimes
Remarks:	The soil profile mee	ets none of	the hydric soil	indicators b	because o	of the high so	oil matrix chrom	nas in each :	soil layer.				

HYDROLOGY

Wetl	and Hydrology Indica	tors:											
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)													
	Surface Water (A1)					Water-Stained Leaves (B9)			Water-Stained Leaves (B9)				
High Water Table (A2) (except MLRA 1, 2, 4A, and 4B)									(MLRA 1, 2, 4A, and	4B)			
	Saturation (A3)					Salt Crust (B11)			Drainage Patterns (B ²	10)			
	Water Marks (B1)					Aquatic Invertebrates (B13)			Dry-Season Water Table (C2)				
	Sediment Deposits (E	32)				Hydrogen Sulfide Odor (C1)			Saturation Visible on Aerial Imagery (C9)				
	Drift Deposits (B3)					Oxidized Rhizospheres along Living Ro	oots (C3)		Geomorphic Position	(D2)			
	Algal Mat or Crust (B4)					Presence of Reduced Iron (C4)			Shallow Aquitard (D3))			
	Iron Deposits (B5)					Recent Iron Reduction in Tilled Soils (C6)			FAC-Neutral Test (D5)				
Surface Soil Cracks (B6) Stunted or Stresses Plants (Stunted or Stresses Plants (D1) (LRR	A)		Raised Ant Mounds (I	D6) (LRR A)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)									Frost-Heave Hummocks (D7)				
Sparsely Vegetated Concave Surface (B8)													
Field	Field Observations:												
Surfa	ce Water Present?	Yes		No	\boxtimes	Depth (inches):							
Wate	r Table Present?	Yes		No	\boxtimes	Depth (inches):							
Soturation Dragost?						\boxtimes							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:													
Remarks: Hydrology was not present and there was no evidence of wetland hydrology.													

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

Project Site: KCPW Recycling Center		<u>g Center</u>			С	ity/County:	Poul	sbo/Ki	<u>tsap</u>	Sampling D	Date:	<u>6-17</u>	<u>′-16</u>		
Applicant/Owner:	Edward F	lose ar	nd Sons							State: WA	Sampling F	oint:	TP 6	6	
Investigator(s):	J. Bartlett	<u>.</u>						Se	ection,	Township, Rang	ge: <u>S 10 T</u>	26 N R 1	EWM		
Landform (hillslope, ter	race, etc.)	: <u>T</u>	errace			Local relie	ef (concave	, conve	x, nor	e): <u>concave</u>		Slop	e (%):	<u>5%</u>	
Subregion (LRR):	MLRA 2			Lat	47.758515			Long:	<u>-122.</u>	<u>650609</u>		Datum:	Google	Eart	<u>h</u>
Soil Map Unit Name:	37 Norm	na fine	sandy loam							NWI clas	sification:	UPL			
Are climatic / hydrologi	c conditior	ns on tl	he site typical fo	or this ti	me of year?	Yes	\boxtimes	No		(If no, explain i	n Remarks.)				
Are Vegetation	Soil	□,	or Hydrology	□,	significantly di	isturbed?	Are "Nor	mal Cir	cumst	ances" present?		Yes	\boxtimes	No	
Are Vegetation \Box ,	Soil	□,	or Hydrology	□,	naturally probl	lematic?	(If neede	ed, expl	ain an	y answers in Re	marks.)				

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes		No	\boxtimes					
Hydric Soil Present?	Yes		No		Is the Sampled Area within a Wetland?	Yes		No	\boxtimes
Wetland Hydrology Present?	Yes		No	\boxtimes					
Remarks: Most of this property has been developed into the local county recycling center, which occupies the southwest quarter. The remainder is composed of									

emarks: Most of this property has been developed into the local county recycling center, which occupies the southwest quarter. The remainder is composed of conifer forest that lies north and east of the recycling center. A seasonal drainage that originates at developed properties to the north lies along the east side of the property. Test Plot 6 is located in the upland forest northeast of the recycling center.

VEGETATION – Use scientific names of plants Absolute Dominant Indicator Tree Stratum (Plot size: 30' diameter) **Dominance Test Worksheet:** % Cover Species? Status 1. Pseudotsuga menziesii FACU 25 yes Number of Dominant Species 1 (A) That Are OBL, FACW, or FAC: 2. Thuja plicata 5 no FAC 3. _____ Total Number of Dominant 5 (B) Species Across All Strata: 4. 50% = <u>15</u>, 20% = <u>6</u> 30 = Total Cover Percent of Dominant Species (A/B) 20 That Are OBL, FACW, or FAC: Sapling/Shrub Stratum (Plot size: 20' diameter) 1. Gaultheria shallon <u>45</u> FACU Prevalence Index worksheet: <u>yes</u> FACU 2. Vaccinium parvifolium 5 Total % Cover of: Multiply by: no 3. OBL species x1 = 4. FACW species x2 = 5. FAC species x3 = FACU species 50% = <u>25</u>, 20% = <u>10</u> <u>50</u> = Total Cover x4 = Herb Stratum (Plot size: 10' diameter) UPL species x5 = 1. Trientalis latifolia 20 ves FACW ____(A) (B) Column Totals: FACU 2. Rubus ursinus 15 Prevalence Index = B/A = ves 3. Polystichum munitum 10 FACU Hydrophytic Vegetation Indicators: <u>yes</u> 4. □ 1 – Rapid Test for Hydrophytic Vegetation 5. _____ 2 - Dominance Test is >50% 6. \Box 3 - Prevalence Index is $\leq 3.0^1$ 7. 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) 8. 9. 5 - Wetland Non-Vascular Plants¹ 10. _____ Problematic Hydrophytic Vegetation¹ (Explain) 11. _____ ¹Indicators of hydric soil and wetland hydrology must 50% = 22.5, 20% = 9= Total Cover be present, unless disturbed or problematic. Woody Vine Stratum (Plot size: 1. Hydrophytic 2. Vegetation No \boxtimes Yes 50% = ____, 20% = ____ = Total Cover Present? % Bare Ground in Herb Stratum 55 The hydrophytic vegetation criterion is not met because there is less than 50% dominance by FAC and FACW species. Remarks:

Project Site: KCPW Recycling Center

SOII

SOIL									Sampling	Point: TP	6		
Profile	Description: (Describe to	o the deptl	h needed to d	ocument the	indicator o	r confirm	the absence	of indicato	ors.)				
Depth Matrix Redox Features						S		_					
(inches) Color (moist)	%	Color (mo	oist) %	% Type ¹		Loc ²	Texture	_		Remarks	;	
<u>0-5</u>	<u>10YR 3/3</u>	100						<u>gr sa loa</u>	<u>m</u>				
<u>5-1</u> 4	<u>10YR 4/3</u>	<u>100</u>						gr sa loam					
<u>14-2</u>	0 <u>10YR 4/4</u>	<u>100</u>						<u>gr sa loa</u>	. <u>m</u>				
¹ Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix, RC=Root Channel													
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ³ :													
ПН	istosol (A1)			Sandy Redo	ox (S5)				2 cm Muck	(A10)			
Histic Epipedon (A2) Stripped Matrix (S6)								Red Parent	Material (TF2)			
Black Histic (A3) Loamy Mucky Mineral (F1) (F1) (excep	t MLRA 1)		Very Shallo	w Dark Su	rface (TF	12)		
ПН	ydrogen Sulfide (A4)			Loamy Gley	ed Matrix (F	2)			Other (Expl	ain in Rem	narks)		
D	epleted Below Dark Surfa	ce (A11)		Depleted Ma	atrix (F3)								
П ТІ	nick Dark Surface (A12)			Redox Dark	Surface (Fe	6)							
🗆 Sa	andy Mucky Mineral (S1)			Depleted Da	ark Surface	(F7)		³ Indicators of hydrophytic vegetation and wetland hydrology must be present,					
🗆 Sa	andy Gleyed Matrix (S4)			Redox Depr	essions (F8)			less disturbe			.,	
Restric	tive Layer (if present):												
Type:													
Depth (i	nches):					Ну	dric Soils Pr	resent?		Yes		No	\boxtimes
Remark	s: The soil profile mee	ets none of	the hydric soil	indicators bec	ause of the	high soil m	atrix chromas	s.					

HYDROLOGY

Surface Water (A1) Water-Stained Leaves (B9) Water-St High Water Table (A2) (except MLRA 1, 2, 4A, and 4B) (MLRA 1) Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Sease Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorp Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	cators (2 or more required) ained Leaves (B9) , 2, 4A, and 4B)										
High Water Table (A2) (except MLRA 1, 2, 4A, and 4B) (MLRA 1 Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Sease Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorp Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	, 2, 4A, and 4B)										
Saturation (A3) Salt Crust (B11) Drainage Water Marks (B1) Aquatic Invertebrates (B13) Dry-Seas Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorp Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	,										
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Seas Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturatic Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorg Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	Dottorno (P10)										
Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorp Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	rallenis (DIU)										
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorp Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	on Water Table (C2)										
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	n Visible on Aerial Imagery (C9)										
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Net	hic Position (D2)										
	Aquitard (D3)										
Surface Soil Cracks (B6) Stunted or Stresses Plants (D1) (LRR A) Raised A	tral Test (D5)										
	nt Mounds (D6) (LRR A)										
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-He	ave Hummocks (D7)										
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 Hydrology Present? Yes No											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks: Hydrology was not present and there was no evidence of wetland hydrology.											

APPENDIX B



DEPARTMENT OF FISH AND WILDLIFE

Mailing Address: 600 Capitol Way North, Olympia, WA 98501-1091 • (360) 902-2200 • TDD (360) 902-2207 Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA

Friday, June 05, 2020

Poulsbo Planning & Economic Development 200 NE Moe Street Poulsbo, WA 98370

SUBJECT: Stream Typing; Oslo Bay Apartments, Kitsap Parcels 102601-4-028-2003, 102601-4-027-2004, 112601-3-044-2004, and 102601-4-022-2009.

Mrs. Boughton,

On June 3rd, 2020 I met with Marla Powers and Michael Bateman of City of Poulsbo, Alison O'Sullivan with the Suquamish Tribe; as well as consultants Joanne Bartlett, Robbyn Myers, Berni Kenworthy, and Chad Wallin on site to determine the stream type of the unnamed tributary to Dogfish Creek on the subject parcels. During this site review we identified the initiation of stream to be approximately 15 ft south/downstream of a stormwater outfall and rock rip rap scour pad coming from the Kitsap Transit Center to the north. At this location (47.758795, -122.649871), the Type N stream begins and continues to run south through the subject parcels to the location of the type break (47.75699, -122.64948) where the stream begins to exhibit Type F characteristics. Please see figure below.



This stream typing determination was based on observed physical characteristics of the stream such as presence of sorted sediment and scoured banks, as well as determinations made during previous site inspections by WDFW personnel in August 2001 (attached letter by Jeff Davis), May 2011(attached email by Gina Piazza), and January 2018 (attached WDFW Fish Passage and Diversion Screening Inventory Database Site Description Report for Site 934421).

Note should be taken that although the Type N segment of this stream exhibits bankful widths greater than 2 ft the type break determinations were made using observations from those previous site inspections referenced above as it appears that site conditions have changed since those inspections.

It is evident in the site conditions that upstream development has resulted in additional stormwater and hydrology in this stream causing increase scour, sediment sorting, exaggeration of stream characteristics, and development of wetland conditions along this stream. It can be assumed that this condition will continue to increase in the future due to changing hydroperiods and flashier flows associated with climate change. Thus, this letter provides a snapshot in time of the current stream conditions that will likely change in the future.

Thank you for considering these comments in your review. Please contact me at (360) 522-6035 to discuss any questions you might have.

Sincerely, Nam Siu

Area Habitat Biologist Washington Department of Fish and Wildlife Nam.Siu@dfw.wa.gov



RECEIVED AUG 2 9 2001 MAP, LTD.

State of Washington DEPARTMENT OF FISH AND WILDLIFE

Region 6 Office: 48 Devonshire Road - Montesano, Washington 98563-9618 - (360) 249-4628

August 23, 2001

Kitsap County DCD ATTENTION: Rick Kimball 614 Division Street, MS-36 Port Orchard, WA 98366

Dear Mr. Kimball:

SUBJECT: Stream Verification; Kitsap County North Maintenance Yard Relocation Proponent, Section 10, Township 26 North, Range 01 East, Kitsap County, WRIA 15.MISC

On August 22, 2001 I met with Mark Ises of MAP Ltd. And the project proponents to review the drainage to the east and determine if a Type NS stream was present on the subject property. After further review, the initiation point for the Type NS stream is offsite to the south of the subject property.

However, within the drainage on the subject property there was the presence of heaving roots found on the mature conifer and alder. Heaving roots can be an indicator of the presence of wetland conditions. Obligate plants were not present within the bottom of this drainage and soil pits were not excavated during this site visit. However, prior to the proposed re-contour of the ravine, soil pits should be excavated to establish whether or not this ravine is a wetland area.

Thank you for the opportunity to provide these comments. If you have any questions, please contact me at (360) 895-3965.

Sincerely,

Jeff Davis Area Habitat Biologist

JD:jd

cc: Rich Brooks, Suquamish Tribe Mark Ises, MAP Ltd., P.O. Box 720, Silverdale, WA 98383

Siu, Nam (DFW)

From:	Piazza, Gina L (DFW) <gina.piazza@dfw.wa.gov></gina.piazza@dfw.wa.gov>
Sent:	Wednesday, June 1, 2011 9:49 AM
То:	bberezowsky@cityofpoulsbo.com
Cc:	Alison Osullivan
Subject:	MDNS 04-07-11-1, Rose Master Plan
Sent: To: Cc:	Wednesday, June 1, 2011 9:49 AM bberezowsky@cityofpoulsbo.com Alison Osullivan

Dear Ms. Berezowsky,

The Washington Department of Fish and Wildlife (WDFW) received your request for review and response of the above noted proposal and offers the following comments at this time. Additional comments may be offered as project review progresses.

- The unnamed stream up to the point where it goes subsurface meets the type 3 definition, which includes seasonal streams. The C3 report dated 05/4/2011 and the BGE Environmental report dated May 13, 2011 describe the stream as not meeting type 3 criteria based on the fact that the stream is likely seasonal. According to the DNR definitions which can be found here:
 http://www.dnr.wa.gov/BusinessPermits/Topics/ForestPracticesApplications/Pages/fp_watertyping.aspx "Fish streams may or may not have flowing water all year; they may be perennial or seasonal." The channel is more than 2 feet wide (also mentioned in the Wiltermood Dec 2010 report) and less than 16% gradient, which are the physical criteria for a type 3 stream. It does not meet the type 4 definition, as that is for perennial non-fish habitat. When it sheet flows without a defined bed, it is not jurisdictional for me (but probably still wetland). WDFW recommends maintaining buffers as appropriate for the above stream. An HPA may be required for any changes to the above stream or dogfish, and mitigation will also be required for impacts to resources described above.
- This project area includes a portion of dogfish creek which has two documented ESA listed species, as well as, several additional fish species and wetlands. WDFW recommends that all activity is limited to outside the buffers set for type "F" streams and wetlands. Riparian trees and vegetation provide several benefits to fish and wildlife that are found in and around streams. These benefits include but are not limited to food production, shading, filtration of storm water pollutants, bank protection from erosion and large woody debris for fish habitat and stream channel stability. The wetlands provide water quality improvements, food and habitat for fish and wildlife, flood control, and shoreline erosion control. They also act as sources of food and provide cover from predators, of which most species of freshwater fish are dependent on for these functions.
- WDFW recommends that Low Impact Development (LID) techniques are implemented to remove and reduce impacts from runoff to receiving waters. The loss of permeable surfaces to an impervious surface will contribute to sedimentation and storm water impacts. Changes in turbidity, flow, temperature and other factors from storm water can impact the suitability of shoreline habitat for salmonids and other aquatic plants and animals. LID reduces impacts on watershed hydrology and aquatic resources by mimicking pre-development peak flow and flow duration conditions. LID includes, but is not limited to minimization of total impervious area, rooftop runoff collection, bio retention swales(rain gardens), compost amended soils, retention of native vegetation (minimizing clearing and grading), maintaining natural drainages, replacing curb and gutter with swales along roadways, and use of permeable pavers.
- A Hydraulic Project Approval (HPA; RCW 77.55.021, WAC 220-110) administered by WDFW is required prior to the performance of construction activities that may divert or change the bed or flow of waters of the state.

Thank you for the opportunity to provide these comments. If you have any questions you may contact me at (360) 895-3965 or <u>gina.piazza@dfw.wa.gov</u>.

Gina Piazza Area Habitat Biologist Washington Dept. Fish and Wildlife 450 Port Orchard Blvd, Suite 290 Port Orchard, WA 98366 Phone: 360 895 3965 Fax: 360 876 1894



Fish Passage & Diversion Screening Inventory Database Report Cover Sheet

The following report is extracted from the Washington Department of Fish and Wildlife's (WDFW) Fish Passage and Diversion Screening Inventory Database (FPDSI). WDFW makes every attempt to keep these reports in sync with FPDSI; however, the dynamic nature of the data and workflows associated with maintaining the database may result in short-term differences.

Users are encouraged to contact WDFW to discuss appropriate use of the data and how we can assist with fish passage barrier removal or inventory. Please visit the Fish Passage web site for contact information at: <u>https://wdfw.wa.gov/species-habitats/habitat-recovery/fish-passage/about</u>

Disclaimers:

- Data presented here represent a snapshot observation of conditions in a dynamic environment that is subject to change. Fish passage data are also collected from a variety of agencies and sources. Therefore, WDFW makes no guarantee concerning the data's content, accuracy, completeness, or the results obtained from use of the data. WDFW assumes no liability for the data represented here.
- These data are not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife.
- Note that some fish passage features, habitats or species may occur in areas not currently known to the WDFW Fish Passage division, and may not be reflected in this database. A lack of data does not necessarily indicate that a feature, habitat, or species are not present.
- Unauthorized attempts to alter or modify these data are strictly prohibited.
- Bankfull width measurements included in these reports should not be used for fish passage crossing design. They are solely for assessment purposes.
- The barrier status reported in this document is based on the swimming abilities of adult salmonids. Passabilities are a qualitative value, and should not be interpreted as a quantitative calculation. Please see page 1-4 of the Fish Passage Inventory, Assessment and Prioritization Manual for further clarification: https://wdfw.wa.gov/publications/02061
- EXIF data presented with Image Reports may be erroneous due to camera battery failures and resetting of camera clock functions.

Abbreviations:

Most abbreviations in this report are defined in the Quick Reference Tables of the Fish Passage Inventory, Assessment, and Prioritization Manual. Additional commonly used abbreviations are defined as follows:

NFB = no potential salmonid use, **BB** = both banks, **LB** = left bank looking downstream, **RB** = right bank looking downstream, **US** or **U/S** = upstream, **DS** or **D/S** = downstream, **WSDrop** = water surface drop, **BFW** = bankfull width, **OHW** = ordinary high water, **SLW** = scour line width, **CMP** = corrugated metal pipe, **Q**_{fp} = fish passage flow, **V&D** = Velocity and Depth, **ROW** = Right of Way

The FPDSI database often uses default values such as '-99.99' or '-999' to represent null values.

WDFW Fish Passage and Diversion Screening Inventory Database

Site ID 934421		Project CIT	Υ
Geographic Coordinat	es	Waterbody	
Latitude (WGS 84):	47.758795	Stream: unnam	ed
Longitude (WGS 84):	-122.649871	Tributary To: Dogfish	-
East (HARN 83):	1,111,607.3		0000
North (HARN 83)	891,773.3		9.99
	091,773.3		No
General Location			sical
Road Name: park	n ride; Vetter Rd	Owner	
Mile Post:	-999.99	Type: City	
County:	Kitsap	Name: City of Poulsbo	
WDFW Region:	6		
PI Species			
□ Sockeye	Chinook	Sea Run Cutthro	bat
Pink	🗌 Coho	□ Resident Trout	
□ Chum	□ Steelhead	□ Bull Trout	
Associated Features			
Culvert	🗌 Dam	Natural Barrier Diversion	on
□ Non-Culvert Xing	□ Other	Fishway	
Location/Directions			
Site Commente			
Site Comments Culvert is being fed from	two detention ponde	s connected by	
standpipes and other cu			

Print Date: 4/22/2019

These data represent a snapshot of the Washington Department of Fish and Wildlife's current records. Due to the ongoing nature of assessment and inventory of these features, these data may not accurately represent conditions on the ground, and are subject to change.

Stream channel completely loses scour just below culvert making culvert NFB.

WDFW Fish Passage and Diversion Screening Inventory Database

Site ID: 934421	
Latitude: 47.758795 Stream: unnamed WRIA:	15.0000
Longitude: -122.649871 Tributary To: Dogfish Cr Fish Use Poter	tial: No
Data Source WDFW	
Field Crew: Fredley;Holowatz Review Date: 1/10/2018	
Culvert Details Level A Pa	rameters
ID Shape Material Span Rise Length WDIC Apron WSDrop Location Counter	ersunk Backwater Slope (%)
1.1 RND PVC 0.61 0.61 -999.90 -99.99 -99.99 Unkr	10wn -99.99
All dimensions in meters	
Channel Description	
Toe Width (m):	
Average Width (m): -99.99	
Culvert/Stream Width Ratio: -99.99	
Plunge Pool ———	
Length (m): -999.99	
Max Depth (m): -99.99	4
OHW Width (m): -999.99	
Road	
Fill Depth (m): -999.90	
-333.30	a de la companya de la compa
Assessment Results	
	N/A
Reason: N/A Fishway Present: No Recheck:	
Comments	
Potential Habitat Gain	
Survey Type: Spawning (sq m): Length (m):
Significant Reach: N/A Rearing (sq m): PI Total	

Level A Culvert Assessment Report

Print Date: 4/22/2019

These data represent a snapshot of the Washington Department of Fish and Wildlife's current records. Due to the ongoing nature of assessment and inventory of these features, these data may not accurately represent conditions on the ground, and are subject to change.