Exhibit C

WRI1

21199 Viking Avenue Delineation Report

May 25, 2022



WETLAND AND STREAM DELINEATION REPORT

FOR

VIKING AVENUE NW POULSBO, WA

Wetland Resources, Inc. Project #21199

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1.0 Introduction

Wetland Resources, Inc. (WRI) conducted a delineation on February 15 and 18, 2022, to identify and evaluate jurisdictional wetlands and streams on and near the parcel assemblage 15260130232005, 15260130252003, 15260130262002, 15260130272001, 15260130332003, 15260130342002, 15260130362000, 15260130402004, 15260130552006, 15260130562005, and 15260130902102. The 30.61 -acre site is located at 19313, 19321, 19379, 19431 Viking Ave NW, & 19521 Laurene Ln NW, in the City of Poulsbo. The Public Land Survey System (PLSS) locator for the site is Section 15, Township 26N, Range 1E, W.M. It is located within the Puget -basin of the Kitsap Watershed (WRIA 15).

The intent of this document is to characterize wetlands, fish and wildlife habitat conservation areas, and associated buffers on and near the subject property, assess impacts associated with the proposed development, and provide mitigation for proposed impacts.



Figure 1 - Aerial view of the subject property. (Not to Scale)

1.1 SITE DESCRIPTION

The site is located west of Viking Ave NW and Liberty Bay. The parcel assemblage is developed with 5 single family-residences and outbuildings. The residences are accessible from Viking Avenue via multiple driveways. Most of the development on the site is in south and central areas. Maintained lawn and landscaping surround each of the residences, and a large, maintained pasture area is in the southwest. The forested areas are primarily vegetated with native plant species including Western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), big leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*), evergreen huckleberry (*Vaccinium ovatum*), salal (*Gaultheria shallon*), and sword fern (*Polystichum munitum*).

Topography of the site is varied, and generally slopes to the south and east towards Puget Sound. A ravine is located along the western portion of the site. Soils underlying the site are mapped by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Alderwood gravelly sandy loam (0 to 8 percent slopes), (8 to 15 percent slopes), (15 to 30 percent slopes), Kapowsin gravelly ashy loam (0 to 6 percent slopes), and Poulsbo gravelly sandy loam (0 to 6) percent slopes.

Seven wetlands and one stream were delineated during the February 2022 site investigations. The wetlands were rated using the Department of Ecology's Washington State Wetland Rating System for Western Washington, 2014 Update. The stream was classified according to WAC 222-16-030, as required by Poulsbo Municipal Code (PMC) 16.20.310.B. Wetland buffers in the City of Poulsbo are determined utilizing Table 16.20.230.B of PMC. The required stream buffer width was determined using PMC Table 16.20.315.

Table 1 below lists the on-site wetlands and stream and their required buffer widths. The attached Wetland and Stream Determination Map depicts the locations of the wetlands, stream, and their associated buffers. The buffers shown on the map in Appendix C are the high intensity buffer widths.

Critical	Wetland	Wetland	HGM	High	Standard
Area	Rating/	Score	Classification	Intensity	Intensity
	Stream	(Overall/		Buffer*	Buffer
	Classification	Habitat)			
Wetland A	Category III	17/7	Depressional	150 Feet	110 Feet
Wetland B	Category III	18/6	Depressional	150 Feet	110 Feet
Wetland C	Category IV	15/5	Slope	50 Feet	40 Feet
Wetland D	Category IV	15/6	Slope	50 Feet	40 Feet
Wetland E	Category III	17/5	Slope	80 Feet	60 Feet
Wetland F	Category III	17/5	Slope	80 Feet	60 Feet
Wetland G	Category III	16/5	Slope	80 Feet	60 Feet
Stream A	Type F1	N/A	N/A	200 Feet	200 Feet

Table 1: Classification and Buffer Widths for the on-site Wetlands and Stream

1.2 REVIEW OF EXISTING INFORMATION

Prior to conducting the site investigation, public resource information was reviewed to gather background information on the subject property and the surrounding area in regard to wetlands, streams, and other critical areas. These sources include the following:

• <u>United States Fish and Wildlife Service National Wetlands Inventory (NWI)</u>: NWI identifies a riverine feature that flows south along the western property line. An off-site wetland is mapped approximately 130 feet east of the site, on the other side of Viking Way. An estuarine wetland associated with Puget Sound is located 700 feet east of the site.

^{*} Residential uses with greater than one unit per acre are considered high intensity land use.

- <u>USDA/NRCS Web Soil Survey:</u> NRCS identifies the soils underlaying the site as Alderwood gravelly sandy loam (0 to 8 percent slopes), (8 to 15 percent slopes), (15 to 30 percent slopes), Kapowsin gravelly ashy loam (0 to 6 percent slopes), and Poulsbo gravelly sandy loam (0 to 6) percent slopes.
- Washington Department of Fish and Wildlife (WDFW) SalmonScape Interactive Mapping
 <u>System:</u> This resource illustrates a stream in the same location as the riverine feature mapped
 by NWI. The stream is mapped with documented presence of Coho Salmon (*Oncorhynchus kisutch*) and Chum Salmon (*Oncorhynchus keta*).
- WDFW Priority Habitat and Species (PHS) Interactive Map: PHS maps the same stream that is mapped by SalmonScape and NWI. The stream is mapped with documented presence of Cutthroat Trout (*Oncorhynchus clarki*), Coho Salmon, and Chum Salmon. This resource also identifies the off-site wetland features that were mapped by NWI to the east.
- <u>Department of Natural Resources Forest Practices Application Mapping Tool (FPAMT):</u> This resource maps a stream in the western area of the site, and it is identified as a Type F water.
- <u>Kitsap County GIS Parcel Search:</u> This resource maps the same stream that is identified by the other resources in the west of the site. The area surrounding the stream is depicted as an erosion hazard. This resource also maps the same off-site wetlands to the east that are identified by NWI and PHS.

2.0 WETLAND AND STREAM DETERMINATION

2.1 METHODOLOGY

The ordinary high water marks (OHWM) of streams was determined using the methodology described in *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson et. al. 2016). Streams are classified according to the water typing system provided in the Washington Administrative Code (WAC), section 222-16-030, Poulsbo Municipal Code (PMC) 16.20.310.B.

Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers 2010). Under the routine methodology, the process for making a wetland determination is based on three steps:

- 1.) Examination of the site for hydrophytic vegetation (species present and percent cover);
- 2.) Examination of the site for hydric soils;
- 3.) Determining the presence of wetland hydrology.

2.1.1 Hydrophytic Vegetation Criteria

The manuals define hydrophytic vegetation as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. One of the most common indicators for hydrophytic vegetation is when more than 50 percent of a plant community consists of species rated "Facultative" and wetter on lists of plant species that occur in wetlands.

2.1.2 Soils Criteria and Mapped Description

The manuals define hydric soils as those that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Field indicators are used for determining whether a given soil meets the definition for hydric soils.

2.1.3 Hydrology Criteria

The 2010 Regional Supplement defines wetland hydrology as "areas that are inundated (flooded or ponded) or the water table is less than or equal to 12 inches below the soil surface for 14 or more consecutive days during the growing season at a minimum frequency of 5 years in 10." During the early growing season, wetland hydrology determinations are made based on physical observation of surface water, a high water table, or saturation in the upper 12 inches. Outside of the early growing season, wetland hydrology determinations are made based on physical evidence of recent inundation or saturation (i.e. water marks, surface soil cracks, water-stained leaves).

2.2 BOUNDARY DETERMINATION FINDINGS AND CLASSIFICATIONS

Seven wetlands and one stream were found on the subject site. No other critical areas were found on or near the subject property. Pursuant to Table 16.20.230.B of PMC, the wetland was classified using the Washington State Wetland Rating System for Western Washington, 2014 Update (Hruby 2014). Streams are classified according to the water typing system provided in the Washington Administrative Code (WAC), section 222-16-030, Poulsbo Municipal Code (PMC) 16.20.310.B.

2.2.1 Wetland A

Cowardin classification: Palustrine, Forested Wetland, Needle Leaved Evergreen,

Seasonally Flooded

HGM Rating Class: Depressional

Category: III Habitat Score: 7

Standard/High Intensity: 110 feet/150 Feet

Wetland A is a large depressional Category III wetland associated with Stream A. The wetland is located at the bottom of the ravine in the western portion of the site. This wetland received a total of 17 points on the depressional wetland rating form.



Figure 2 - Photo looking along Wetland A at bottom of ravine.

Vegetation within Wetland A includes Western red cedar (*Thuja plicata*; FAC), red alder (*Alnus rubra*; FAC), salmonberry (*Rubus spectabilis*; FAC), lady fern (*Athyrium filix-femina*; FAC), deer fern (*Blechnum spicant*; FAC), foamflower (*Tiarella trifoliata*; FAC), and skunk cabbage (*Lysichiton americanus*; OBL). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within Wetland A are black (10YR 2/1) silt loam from 0 to 8 inches. Between 8 and 16 inches beneath the surface, the soils are black (10YR 2/1) sandy loam with dark grayish brown (10YR 4/2) depletions. During our February 2022 site visit, conditions in Wetland A met primary hydrology indicators High Water Table (A2) and Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 7 receive standard 110-foot protective buffers.

2.2.2 Wetland B

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen,

Seasonally Flooded/Saturated

HGM Rating Class: Depressional

Category: III Habitat Score: 6

Standard/High Intensity Buffer: 110 feet/150 Feet

Wetland B is a depressional Category III wetland located in the northern portion of the property, in the northeast corner of Kitsap County parcel number 152601-3-023-2005. This wetland received a total of 18 points and 6 points for wildlife habitat function on the wetland rating form.



Figure 3 – Photo of ponded area in Wetland B.

Vegetation within Wetland B includes western red cedar (*Thuja plicata*; FAC) red alder (*Alnus rubra*; FAC), salmonberry (*Rubus spectabilis*; FAC), lady fern (*Athyrium filix-femina*; FAC), and slough sedge (*Carex obnupta*; OBL). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within Wetland B are black (10YR 2/1) silt loam from 0 to 16 inches. During our February 2022, site visit, standing water was observed within a portion of wetland. In other areas, the water table was observed at 1 inch below the surface and saturation was observed at the surface. Conditions within this wetland met multiple primary wetland hydrology indicators.

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 6 receive standard 110-foot protective buffers.

2.2.3 Wetland C

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen, Saturated

HGM Rating Class: Slope

Category: IV Habitat Score: 5

Standard/High Intensity Buffer: 40 feet/50 feet

Wetland C is a slope wetland located north of the residence at 19313 Viking Avenue Northwest and south of the residence at 19321 Viking Avenue Northwest. This wetland received a total of 15 points and 5 points for wildlife habitat function on the wetland rating form. This results in a Category IV rating.



Figure 4 - Looking west through Wetland C.

Vegetation in this wetland includes western red cedar (*Thuja plicata*; FAC), western lady fern (*Athyrium filix-femina*; FAC), and lawn/pasture grasses. Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland C are black (10YR 2/1) sandy loam with dark yellowish brown (10YR 4/6) redoximorphic features. This profile meets hydric soil indicator Redox Dark Surface (F7). During our February 2022 site visit, conditions in the wetland met hydrology indicators High Water Table (A2) and Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category IV wetlands with habitat scores of 5 receive standard 40-foot protective buffers.

2.2.4 Wetland D

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen,

Seasonally Flooded/Saturated **HGM Rating Class:** Slope

Category: IV Habitat Score: 6

Standard/High Intensity Buffer: 40 feet/50 feet

Wetland D is a slope wetland in the southeast corner of the property, southeast of the house at 19321 Viking Avenue Northwest. This wetland received a total of 15 points and 6 points for wildlife habitat function on the wetland rating form.



Figure 5 - Photo of looking south towards Wetland D.

Vegetation within Wetland D includes knotweed (Fallopia sp.), Himalayan blackberry (Rubus spectabilis; FAC), (Phalaris arundinacea; FACW), and western lady fern (Athyrium filix-femina; FAC). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland D are very dark grayish brown (10YR 3/2) sandy loam from 0 to 5 inches. Between 5 and 16 inches beneath the surface, the soils are very dark gray (10YR 3/1) sandy loam with olive brown (2.5Y 4/4) redoximorphic features. During our February 2022 site visit, saturation was observed at the surface. Wetland D meets wetland hydrology indicator Saturation (A3) and hydric soil indicator Redox Dark Surface (F6).

Pursuant to Table 16.20.230.B of PMC, Category IV wetlands with habitat scores of 6 receive standard 40-foot protective buffers.

2.2.5 Wetland E

Cowardin classification: Palustrine, Scrub-Shrub, Broad Leaved Deciduous, Saturated

HGM Rating Class: Slope

Category: III Habitat Score: 5

Standard/High Intensity Buffer: 60 feet/80 feet

Wetland E is a slope wetland in the northeastern portion of the property located at 19431 Viking Ave NW. The slope wetland is between two driveways that provide access across the site. This wetland received a total of 17 points and 5 points for wildlife habitat function on the wetland rating form.



Figure 6 - Photo looking northeast through Wetland E.

Vegetation within Wetland E includes Himalayan blackberry (*Rubus armeniacus*; FAC), rose (*Rosa sp.*), and reed canary grass (*Phalaris arundinacea*; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland E are very dark gray to very dark grayish brown (10YR 3/1) sandy loam in the upper layer. Between 4 and 16 inches below the surface, soils are a dark gray (10YR 4/1) sandy loam with dark yellowish brown (10YR 4/6) redoximorphic features. During our February 2022 site visit, the soils were saturated to the surface. Wetland E meets wetland hydrology indicator Saturation (A3) and hydric soil indicator Depleted Matrix (F3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.6 Wetland F

Cowardin classification: Palustrine, Forested Wetland, Broad Leaved Deciduous, Saturated

HGM Rating Class: Slope

Total Score: 17 Category: III Habitat Score: 5

Standard/High Intensity Buffer: 60 feet/80 feet

Wetland F is a slope wetland located south of the driveway located at 19431 Viking Ave NW. This wetland extends down slope, towards Viking Ave NW. This wetland received a total of 17 points and 5 points for wildlife habitat function on the wetland rating form. This wetland is a Category III wetland with a low habitat score.

Vegetation within Wetland F includes red alder (*Alnus rubra*; FAC) and reed canary grass (*Phalaris arundinacea*; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.



Figure 7 - Looking west through Wetland F.

Soils observed within Wetland F are generally very dark brown (10YR 2/2 sandy loam with gray (10YR 5/1) and yellowish brown (10YR 5/8) redoximorphic features. During our February 2022 site visit, saturation was observed at 8 inches below the surface. Wetland F meets hydric soil indicator Redox Dark Surface (F6) and wetland hydrology indicator Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.7 Wetland G

Cowardin classification: Palustrine, Scrub-Shrub Wetland, Broad Leaved Deciduous,

Saturated

HGM Rating Class: Slope

Category: III Habitat Score: 5

Standard/ High Intensity Buffer: 60 feet/80 feet

Wetland G is a slope wetland located on tax parcel 152601-3-036-2000. It extends off-site to the east near Viking Ave NW. This wetland is a Category III wetland with a low habitat score.



Figure 8 - Photo of Wetland G, facing west.

Vegetation within Wetland G includes knotweed (Fallopia sp.), Himalayan blackberry (Rubus armeniacus; FAC), and reed canary grass (Phalaris arundinacea; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within the top 8 inches below the surface of Wetland G are a very dark brown (10YR 2/2) silt loam. Below 8 inches beneath the surface, soils are grayish brown (2.5Y 5/2) silt loam and olive brown (7.5YR 4/6) redoximorphic features. During our February 2022, site visit, saturation was observed at the surface. Wetland G meets hydric soil indicator Depleted Matrix (F3) and hydrology indicator Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.8 Stream A

Cowardin Classification: Riverine, Lower Perennial, Unconsolidated Bottom,

Cobble/Gravel **Stream Type:** F **Buffer:** 200 feet



Figure 9 - Photo of Stream A, facing north.

Stream A is a Type F1 stream associated with Wetland A and is known /documented habitat for multiple salmonids. Stream A is located along the western portion of the site and extends offsite to the north and south. Pursuant to Table 16.20.315 of PMC, Type F1 streams receive 200-foot protective buffers with additional building setbacks of at least 25 feet.

2.2.9 Non-wetland

The non-wetland areas of the site are vegetated with a canopy of western red cedar (*Thuja plicata*; FAC) Douglas fir (*Pseudotsuga menziesii*; FAC), western hemlock (*Tsuga heterophylla* FACU), and big leaf maple (*Acer macrophyllum*; FACU) The understory is vegetated with evergreen huckleberry (*Vaccinium ovatum*; FACU), red huckleberry (*Vaccinium parvifolium*; FACU), Himalayan blackberry (*Rubus armeniacus*; FAC), sword fern (*Polystichum munitum*; FACU), English ivy (*Hedera helix*; FACU), and (*Phalaris arundinacea*; FACW). Soils in non-wetland areas vary from very dark brown (10YR 2/2) silt loam to dark yellowish brown (10YR 4/4) sandy loam. Soils in these areas were generally dry during our February 2022 site visit and did not contain redoximorphic features.

3.0 WILDLIFE

Wetlands, streams, and their associated buffers contain resources for wildlife such as food, water, thermal cover, and hiding cover in close proximity. Given the habitat available, it is expected that the following mammalian species use the area: Columbian black-tailed deer (Odocoileus hemionus columbianus), black bear (Ursus americanus), bobcat (Lynx rufus), coyote (Canis latrans), deer mice (Peromyscus maniculatus), eastern cottontail (Sylvilagus floridanus), moles (Scapanus spp.), raccoon (Procyon lotor), bats (Myotis spp.), shrews (Sorex spp.), skunks (Mephitis spp.), squirrels (Sciuris griseus, Tamiasciurus douglasii), and Virginia opossums (Didelphis virginiana). Avian species expected to use the subject site include: Golden-crowned Kinglet (Regulus satrapa), Pacific Wren (Troglodytes pacificus), Common Raven (Corvus corax), American Crow (Corvus brachyrhynchos), American Robin (Turdus migratorius), Spotted Towhee (Pipilo maculatus), Black-capped Chickadee (Poecile atricapillus), Dark-eyed Junco (Junco hyemalis), Bushtit (Psaltriparus minimus), Northern Flicker (Colaptes auratus), Hairy Woodpecker (Picoides villosus), Downy Woodpecker (Dendrocopus villosus), Red-breasted Nuthatch (Sitka canadensis), Brown Creeper (Certhia americana), Varied Thrush (Ixoreus naevius), and Red-tailed Hawk (Buteo jamaicensis). A variety of amphibian species may also use the area, especially in and around the onsite stream. This list is not intended to be all-inclusive, and may omit some bird, mammal or amphibian species that utilize the site.

Based on review of the WDFW Priority Habitats and Species Maps and SalmonScape Stream A has documented presence of Coho (*Oncorhynchus kisutch*), Chum (*Oncorhynchus keta*), and Resident Coastal Cutthroat Trout (*Oncorhynchus clarki*).

4.0 USE OF THIS REPORT

This Stream and Wetland Determination Report has been prepared as a means of determining on-site and nearby critical areas as required by City of Poulsbo during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to environmentally critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report, and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.

Alexander Heck Associate Ecologist Meryl Kamowski, PWS Senior Ecologist

5.0 REFERENCES

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APPENDIX A:

WETLAND DETERMINATION DATA FORMS

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo	S	Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	sampling Point: S1
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26N	i, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	Lat: _47°	44'20.52'	"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent :	slopes		NWI classificatio	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes			
Are Vegetation, Soil, or Hydrology signif	•		`	mal Circumstances" present?	? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Rei	
SUMMARY OF FINDINGS – Attach site map					
					-
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No		ls t	he Sampled		_
Wetland Hydrology Present?		with	hin a Wetlar	nd? Yes ✓ No	
Remarks:	ı				
In Wetland A Near WRA12.					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator	Dominance Test worksho	
1. Thuja plicata	40	Y	FAC	Number of Dominant Spec That Are OBL, FACW, or F	
Pseudotsuga menziesii*	15	N	FACU		(, ,
3			· ——	Total Number of Dominant Species Across All Strata:	
4.					
Out well to	55	= Total (Cover	Percent of Dominant Spec That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 3m radius	15	Υ	EAC		· ·
1. Rubus spectabilis	15	-	FAC	Prevalence Index worksh Total % Cover of:	
2				OBL species	
4				FACW species	
5.			· <u></u>	FAC species	x 3 = 0
	15	= Total (Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	10	V	EAC		x 5 = <u>0</u>
Blechnum spicant Athyrium filix-femina	10 10	<u>Y</u> Y	FAC FAC	Column Totals: 0	(A) <u>0</u> (B)
		Y	FACU	Prevalence Index =	B/A =
3. Hedera helix 4	-	-		Hydrophytic Vegetation	
5				Rapid Test for Hydropl	nytic Vegetation
6.				Dominance Test is >50)%
7				Prevalence Index is ≤3	
8					ions ¹ (Provide supporting ron a separate sheet)
9			·	Wetland Non-Vascular	• ,
10			· <u></u>		tic Vegetation ¹ (Explain)
11				1 	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	25	= Total (Cover	be present, unless disturbe	ed or problematic.
1. None	0				
2			· - <u></u>	Hydrophytic Vegetation	
	0	= Total (Cover		∕ No ☐
% Bare Ground in Herb Stratum _75 Remarks:					
	nd A				
* Pseudotsuga menziesii is rooted out of Wetla	nu A.				

Sampling Point: S1

10 10 10 10 10 10 10 10	Depth	Matrix			lox Feature	<u>es</u>	2		
Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, Vydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Histosol (A1) Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators (A1) Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators (A1) Indicators	(inches)			Color (moist)	%	Type ¹	_Loc ²		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: CSoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*:									
Histosol (A1)	9-16	10YR 2/1	90	10YR 4/2	10	<u>C</u>	M	Sandy Loam	-
Sandy Mucky Mineral (S1)	Histosol Histic Ep Black Hi Hydroge Depleted	Indicators: (Appli (A1) pipedon (A2) stic (A3) n Sulfide (A4) d Below Dark Surface	cable to al	Sandy Redox Stripped Matrix Loamy Mucky Loamy Gleyed	erwise no (S5) x (S6) Mineral (F I Matrix (F2	ted.) 1) (excep		Indicate 2 cr Rec Ver	ors for Problematic Hydric Soils ³ : m Muck (A10) d Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Sandy Gleyed Matrix (S4)	Thick Da	ark Surface (A12)		Redox Dark Si	urface (F6))			
Restrictive Layer (if present): Type:	= '	• • •		_ `		- 7)			
Type:				Redox Depres	sions (F8)			unle	ss disturbed or problematic.
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) High Water Table (A2) 1, 2, 4A, and 4B) Aquatic Invertebrates (B13) Drainage Patterns (B10) Drainage Patterns (B1	Type:							Hydric Soi	I Present? Yes ✔ No
Surface Water (A1)	Wetland Hy	drology Indicators		ed; check all that ap	ply)			Seco	ondary Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Surface Soil Cracks (B7) Depth (inches): Surface Water Present? Yes No Depth (inches): Surface Surface Wetland Hydrology Present? Yes No Depth (inches): Surface Surface Surface Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface	Water (A1)	,	☐ Water-Sta	ained Leav		xcept MLF		Vater-Stained Leaves (B9) (MLRA 1, 2,
Water Marks (B1)	=					3)			
Sediment Deposits (B2)	=	` '			, ,	o (D42)			` ,
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves V No Depth (inches): Saturation Present? Yes V No Depth (inches): Surface Wetland Hydrology Present? Yes V No Depth (inches): Surface Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		` '				. ,			` '
Algal Mat or Crust (B4)	=			= ' '		` '	Living Poo		
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Depth (inches): Surface No Depth (inches): No Depth (inch	= '					_	_		, ,
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Depth (inches): Surface Water Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches):	= -			_		•	,		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):				_			•	_	` ,
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):	_		Imagery (B	_		•	, ,		
Surface Water Present? Yes No Depth (inches):	Sparsely	Vegetated Concav	e Surface (B8)					
Vater Table Present? Yes V No Depth (inches): 1 Wetland Hydrology Present? Yes No No Depth (inches): Surface Wetland Hydrology Present? Yes No No Depth (inches): Surface No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ield Obser	vations:							
Saturation Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Society No Depth (inches): Surface Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ' '					
includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ' '					
			Yes 🗾 N	o Depth (inche	es): Suriac	<u>e </u>	Wetl	and Hydrolog	gy Present? Yes[v] No[
Remarks:			m gauge, m	onitoring well, aeria	l photos, p	revious in	spections),	if available:	
	Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	Sampling Point: S2
				ownship, Range: S15, T26N	
				, convex, none): None	
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent :	slopes		NWI classification	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes			
Are Vegetation, Soil, or Hydrology signifi	•	_		mal Circumstances" present	? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Re	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes No 🗸					
Hydrophytic Vegetation Present? Yes No V Hydric Soil Present? Yes No V			he Sampled		
Wetland Hydrology Present?		wit	hin a Wetlar	nd? Yes No	<u>v</u>
Remarks:					
Out of Wetland A Near WRA12					
VEGETATION – Use scientific names of plant	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		nt Indicator	Dominance Test worksh	
Pseudotsuga menziesii	30	Y	FACU	Number of Dominant Spec That Are OBL, FACW, or I	
2. Thuja plicata	25	Υ	FAC		
3. Tsuga heterophylla	20	Υ	FACU	Total Number of Dominant Species Across All Strata:	_
4.					(2)
	75	= Total	Cover	Percent of Dominant Spec That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 3m radius	_		=		
1. Vaccinium parvifolium	·	<u>Y</u>	FACU	Prevalence Index works	
2				Total % Cover of: OBL species	
3				FACW species	
4. 5.			-	FAC species	
3	5	= Total (Cover	FACU species	
Herb Stratum (Plot size: 1m radius		- Total		UPL species	_
Polystichum munitum	20	Y	FACU		(A) 0 (B)
2. Hedera helix	5	Y	FACU		
3				Prevalence Index =	
4				Hydrophytic Vegetation Rapid Test for Hydrop	
5				Dominance Test is >50	
6				☐ Prevalence Index is ≤3	
7 8					tions ¹ (Provide supporting
9					r on a separate sheet)
10				Wetland Non-Vascular	
11.				1 	tic Vegetation ¹ (Explain)
	25	= Total	Cover	¹ Indicators of hydric soil ar be present, unless disturbe	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius				be present, unless disturbe	sa of problematic.
1. None	0			Hydrophytic	
2				Vegetation	J No
% Bare Ground in Herb Stratum 75	0	= Total	Cover	Present? Yes	_ No ✓
Remarks:				1	

Sampling Point: S2

Depth	Matrix		Redo	ox Feature	<u>es</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/6	100					Sandy Loam	Dry
6-11	10YR 4/6	100					Sandy Loam	Dry
11-17	10YR 4/4	95	10YR 3/6	5	С	М	Sandy Loam	Dry
Hydric Soil Histosol	Indicators: (Appli (A1)		=Reduced Matrix, C I LRRs, unless othe	rwise no		ed Sand G	Indicato	cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils³: n Muck (A10)
Black Hi	pipedon (A2) istic (A3) en Sulfide (A4)		Stripped Matrix Loamy Mucky M	Mineral (F		t MLRA 1)	Very	Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Deplete	d Below Dark Surfac ark Surface (A12)	ce (A11)	Depleted Matrix Redox Dark Su	(F3)			_	ors of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark	,	- 7)			and hydrology must be present,
	Bleyed Matrix (S4) Layer (if present):		Redox Depress	sions (F8)			unles	ss disturbed or problematic.
Type:	nches):						Hydric Soil	I Present? Yes No ✔
Remarks:								<u> </u>
IYDROLO)GY							
Wetland Hy	drology Indicators	s:						
Primary Indi	cators (minimum of	one require	ed; check all that app	ly)			Seco	ndary Indicators (2 or more required)
Surface	Water (A1)			ined Leav	es (B9) (e	xcept MLF	RA 🔲 W	/ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		1, 2, 4	A, and 4E	3)		_	4A, and 4B)
Saturation	` '		Salt Crust	` '				rainage Patterns (B10)
	larks (B1)		Aquatic In				_	ry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen		` '	Listan Dan		aturation Visible on Aerial Imagery (C9)
=	posits (B3)		Presence	•	_	Living Roo		eomorphic Position (D2)
_	at or Crust (B4) posits (B5)		_		`	+) d Soils (C6		hallow Aquitard (D3) AC-Neutral Test (D5)
	Soil Cracks (B6)		_			1) (LRR A)	_	aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	_		,	., (=:::::,		rost-Heave Hummocks (D7)
_	y Vegetated Concav				,		_	` ,
Field Obse	rvations:		·					
Surface Wa	ter Present?	Yes N	o Depth (inche	s):				
Water Table	Present?		o Depth (inche					
Saturation F		Yes N	o 🔽 Depth (inche	s):		Wetl	and Hydrolog	y Present? Yes No ✓
	pillary fringe) ecorded Data (strear	m gauge, m	onitoring well, aerial	photos, p	revious in	spections),	if available:	
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Cou	nty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	Sampling Point: S3
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26N	N, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	Lat: _47°	°44'20.52	2"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent	slopes		NWI classification	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No (I		
Are Vegetation, Soil, or Hydrology signif	•	_		mal Circumstances" present	? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Re	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No		Is	the Sampled		
Wetland Hydrology Present?		wi	thin a Wetlar	nd? Yes ✓ No	
Remarks:	ı				
In Wetland A Near WRA30					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute		nt Indicator	Dominance Test worksh	
1. Thuja plicata	35	Y	S? Status FAC	Number of Dominant Sper That Are OBL, FACW, or	
Pseudotsuga menziesii*	15	N	FACU	That Are OBL, FACW, or	(A)
3. Acer macrophyllum*	5	N	FACU	Total Number of Dominan Species Across All Strata:	_
4.					(=)
Ou wall a	55	= Total	Cover	Percent of Dominant Spec That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius	0				
1. None	0			Prevalence Index works Total % Cover of:	
2 3				OBL species	
4				FACW species	
5				FAC species	
	0	= Total	Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	45	V	FA0	UPL species	x 5 = 0
1. Tiarella trifoliata	15	<u>Y</u>		Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index =	B/A =
3 4				Hydrophytic Vegetation	
5				Rapid Test for Hydrop	hytic Vegetation
6.				✓ Dominance Test is >5	0%
7				Prevalence Index is ≤	
8				Morphological Adapta	tions ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascula	' '
10					rtic Vegetation ¹ (Explain)
11	45	-		1 	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	15	= Total	Cover	be present, unless disturb	
1. None	0	· .			
2.		-		Hydrophytic Vegetation _	
	0	= Total	Cover		✓ No 🗌
% Bare Ground in Herb Stratum 85					
Remarks:			-414/11	٨	
Pseudotsuga menziesii and Acer macrophyllur	n are root	ea out (ot vvetland	Α.	

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10 YR 2/1	100					Sandy Loam	
	-		-	-				
				_				_
				=				
				_				
	-							
1- 00	5.5						. 21	
			=Reduced Matrix, CS LRRs, unless other			ed Sand Gi		cocation: PL=Pore Lining, M=Matrix.
Histosol		cable to all	_		eu.)		_	•
_	oipedon (A2)		Sandy Redox (S				_	m Muck (A10) d Parent Material (TF2)
Black Hi			Loamy Mucky M	. ,) (except	MLRA 1)	_	ry Shallow Dark Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed M			,		ner (Explain in Remarks)
_ ` `	d Below Dark Surfa	ce (A11)	Depleted Matrix					•
Thick Da	ark Surface (A12)		Redox Dark Sur				³ Indica	tors of hydrophytic vegetation and
_	lucky Mineral (S1)		Depleted Dark S	•	7)			land hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressi	ions (F8)			unle	ess disturbed or problematic.
	Layer (if present):							
Type:	-1>							
Deptn (in	ches):						Hydric So	il Present? Yes ✔ No
Remarks:								
Chroma -	1 soils with low	values ar	e indicative of pro	olonged	saturat	ion and i	nundation.	Redoximorphic features can be
masked by	prolonged satu	uration an	d inundation.					
IVDDOLO	-04							
IYDROLO								
-	drology Indicators							
		one require	ed; check all that appl					ondary Indicators (2 or more required)
	Water (A1)		Water-Stai			xcept MLF	RA 📙 \	Water-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)			A, and 4B)				4A, and 4B)
✓ Saturation	on (A3)		Salt Crust	(B11)				Orainage Patterns (B10)
	arks (B1)		Aquatic Inv	ertebrates	s (B13)			Ory-Season Water Table (C2)
_	nt Deposits (B2)		Hydrogen :		` '			Saturation Visible on Aerial Imagery (C9)
=	oosits (B3)		Oxidized R		_	_		Geomorphic Position (D2)
_	at or Crust (B4)		Presence o		,	,		Shallow Aquitard (D3)
	osits (B5)		Recent Iron			•	_	FAC-Neutral Test (D5)
_	Soil Cracks (B6)		Stunted or		•	1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial			lain in Rei	marks)		<u></u>	Frost-Heave Hummocks (D7)
	Vegetated Concav	ve Surface (B8)					
Field Obser		_						
Surface Wat			Depth (inches	,				
Water Table		_	Depth (inches					<u></u>
Saturation P		Yes 🔽 N	Depth (inches	s): Surface	·	Wetl	and Hydrolo	gy Present? Yes 🗸 No 🗌
	pillary fringe) corded Data (streat	m anua m	onitoring well, aerial	nhotos pr	evious in	enections)	if available.	
Describe ive	corded Data (Stream	iii gauge, iii	oriitoring well, aeriai į	priotos, pri	evious iii.	spections),	ii available.	
Dama da								
Remarks:								

Project/Site: 21199 - Viking Ave NW	(City/Cou	nty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: <u>S4</u>
Investigator(s): MK, AR, AH			_ Section, To	ownship, Range: S15, T26	6N, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local re	elief (concave,	, convex, none): None	Slope (%): <u>15</u>
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.5	2"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	✓ No (li	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	•	_	`	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura	-			d, explain any answers in R	
SUMMARY OF FINDINGS – Attach site map					
		Jampi	mg ponit it		important reatures, etc.
Hydrophytic Vegetation Present? Yes No		Is	the Sampled	l Area	
Hydric Soil Present? Wetland Hydrology Present? Yes No V		wi	ithin a Wetlar	nd? Yes No) ~
Wetland Hydrology Present? Yes No					
Out of Wetland A Near WRA30					
Out of Welland A Near WINASO					
VEGETATION – Use scientific names of plant	ts.				
F	Absolute		int Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius			s? Status	Number of Dominant Sp	
Pseudotsuga menziesii Acer macrophyllum	<u>50</u> 20	<u>Y</u> Y	FACU FACU	That Are OBL, FACW, or	r FAC: 0 (A)
		-	_ FACU	Total Number of Domina	_
3				Species Across All Strata	a: <u>7</u> (B)
4	70	= Total	Cover	Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: 3m radius		= 10(a)	Cover	That Are OBL, FACW, or	r FAC: <u>0</u> (A/B)
1. Ilex aquifoluim	45	Υ	FACU	Prevalence Index work	sheet:
2. Corylus cornuta	40	Y	FACU	Total % Cover of:	Multiply by:
3. Mahonia nervosa	30	Y	FACU	OBL species	
4. Rubus spectabilis	20	N	<u>FAC</u>		x 2 = 0
5. Oemleria cerasiformis	7	N	FACU		x 3 = 0
Herb Stratum (Plot size: 1m radius	142	= Total	Cover	FACU species	
Polystichum munitum	60	Υ	FACU	UPL species	x = 0
2.		-		Column Totals: 0	(A) <u>0</u> (B)
3.				Prevalence Index	= B/A =
4.				Hydrophytic Vegetation	n Indicators:
5				Rapid Test for Hydro	phytic Vegetation
6				Dominance Test is >	50%
7				Prevalence Index is:	
8					ations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	•
10		-	_		nytic Vegetation¹ (Explain)
11				_	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius		= Total	Cover	be present, unless distur	
1	30	Y	FACU		
2.				Hydrophytic Vegetation	
	30	= Total	Cover		☐ No ✓
% Bare Ground in Herb Stratum 40					
Remarks:					

Depth	Matrix			x Features		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-17	10YR 4/4	100					Loamy Sand	Dry	
	-			_				-	
	-							-	
	-								
								-	
Type: C-C	oncentration D-De	nletion PM	=Reduced Matrix, CS	S-Covered	Lor Coate	ad Sand Gr	raine ² Lo	cation: E	PL=Pore Lining, M=Matrix.
•			LRRs, unless other			od Sand Gr			roblematic Hydric Soils ³ :
Histosol			Sandy Redox (S		,			n Muck (·
_	ipedon (A2)		Stripped Matrix				_		Material (TF2)
Black Hi			Loamy Mucky M	lineral (F1)) (except	MLRA 1)	Very	/ Shallow	Dark Surface (TF12)
- ' '	n Sulfide (A4)		Loamy Gleyed N				Othe	er (Expla	in in Remarks)
= '	Below Dark Surface	ce (A11)	Depleted Matrix				2		
=	rk Surface (A12)		Redox Dark Sur	` ,	_,			-	drophytic vegetation and
= '	lucky Mineral (S1)		Depleted Dark S	•	7)				ology must be present,
	leyed Matrix (S4) Layer (if present):		Redox Depressi	ions (F8)			unies	ss distur	ped or problematic.
Type:	Layer (ii present).								
,,	ches):						Hydric Soil	Broson	t? Yes No
emarks:							Hydric Soil	riesen	tr res No
/DROLO	GY								
	drology Indicators	<u> </u>							
-			d; check all that appl	v)			Seco	ndarv Ind	dicators (2 or more required)
_	Water (A1)		_		s (B9) (e	xcept MLR			ined Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			A, and 4B)		Acopt III 211	" Ц"	4A, an	, , ,
Saturation			Salt Crust				Пр		Patterns (B10)
=	arks (B1)		Aquatic Inv	` '	(B13)			Ū	on Water Table (C2)
	t Deposits (B2)		Hydrogen		. ,			-	Visible on Aerial Imagery (C9)
=	osits (B3)		= ′ °		` '	Living Root			nic Position (D2)
= '	t or Crust (B4)		Presence of	•	_	-	· · · —	hallow A	quitard (D3)
= -	osits (B5)		Recent Iro	n Reductio	n in Tille	d Soils (C6)			ral Test (D5)
_	Soil Cracks (B6)		_			1) (LRR A)			it Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	7) Other (Exp	lain in Ren	narks)	, , , ,	F	rost-Hea	ve Hummocks (D7)
Sparsely	Vegetated Concav	e Surface (B8)						
ield Obser	vations:								
Surface Wat	er Present?	Yes N	Depth (inches	s):					
Vater Table	Present?	Yes N	Depth (inches	s):					
Saturation P	resent?		Depth (inches			Wetla	and Hydrolog	y Prese	nt? Yes No
includes ca	oillary fringe)								
Describe Re	corded Data (stream	m gauge, m	onitoring well, aerial	photos, pre	evious ins	spections),	if available:		
Remarks:									
.omarks.									

Project/Site: 21199 - Viking Ave NW		City/Cou	_{unty:} Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: <u>S5</u>
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local r	elief (concave	, convex, none): None	Slope (%): <u>15</u>
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.5	52"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	0 percent	slopes		NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	✓ No (I	If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Nor	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	(If needed	d, explain any answers in R	temarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampl	ling point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes No					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V			the Sampled		
Wetland Hydrology Present?		w	ithin a Wetlai	nd? Yes No	
Remarks:					
Out of Wetland A Near OHWMA60					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute		ant Indicator	Dominance Test works	heet:
Pseudotsuga menziesii	40	Y	es? Status FACU	Number of Dominant Spe That Are OBL, FACW, or	
2. Tsuga heterophylla	20	Y	FACU	That Are OBL, FACW, O	(A)
3. Thuja plicata	10	N	FAC	Total Number of Domina Species Across All Strata	_
4.					(=/
	70	= Tota	l Cover	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius					
1. Vaccinium parvifolium	15	<u>Y</u>	FACU	Prevalence Index work	
2. Rubus spectabilis	10	Y	FAC	Total % Cover of:	
3				OBL species	
4					x = 0
5	25			FAC species	x 3 = 0
Herb Stratum (Plot size: 1m radius	23	= Tota	ll Cover	UPL species	
1. Polystichum munitum	10	Υ	FACU	Column Totals: 0	
2. Rubus ursinus	5	Υ	FACU	Column Totals.	(A) <u>-</u> (B)
3				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	
6				Dominance Test is >	
7				Prevalence Index is:	
8					rations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	•
10					nytic Vegetation ¹ (Explain)
11	4 =			¹ Indicators of hydric soil	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	13	= Tota	il Cover	be present, unless distur	bed or problematic.
1. None	0				
2				Hydrophytic Vegetation	
	0	= Tota	l Cover		□ No ✓
% Bare Ground in Herb Stratum 85					
Remarks:					

Sampling Point: S5

Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	% T	Type ¹ L		Texture		Remarks
0-16	10YR 4/6	100					Sandy Loam	Dry	
	-							-	
								-	
	-								
				= . <u></u>					
	oncontration D_Da	nlotion DM	1=Reduced Matrix, C	S_Covered a	r Coatad 9	Sand Cra	ino ² l oc	notion: D	L=Pore Lining, M=Matrix.
•			I LRRs, unless othe			Sanu Gra			roblematic Hydric Soils ³ :
Histosol			Sandy Redox (S		•,			Muck (A	· ·
_	oipedon (A2)		Stripped Matrix				_	•	Material (TF2)
Black Hi			Loamy Mucky M		except MI	LRA 1)			Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy Gleyed		-		Othe	er (Explai	n in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix	(F3)					
=	ark Surface (A12)		Redox Dark Sui	` ,				-	Irophytic vegetation and
	lucky Mineral (S1)		Depleted Dark S	, ,					logy must be present,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)		-	unles	s disturb	ed or problematic.
Type:	Layer (if present):								
,,	ches):							_	
Deptii (iii							Hydric Soil	Present	? Yes No ✔
/DROLO)GY								
	OGY drology Indicators	s:							
Vetland Hy	drology Indicators		ed; check all that appl	y)			Secor	ndary Inc	licators (2 or more required)
Vetland Hy	drology Indicators		_		(B9) (exc e	ept MLRA			licators (2 or more required)
/etland Hy rimary Indi	drology Indicators		☐ Water-Stai	ly) ned Leaves (A, and 4B)	(B9) (exce	ept MLRA		ater-Stai	ned Leaves (B9) (MLRA 1, 2,
/etland Hy rimary Indi	drology Indicators cators (minimum of Water (A1) ater Table (A2)		☐ Water-Stai	ned Leaves (A, and 4B)	(B9) (exce	ept MLRA	w w	ater-Stai	ned Leaves (B9) (MLRA 1, 2,
/etland Hy rimary Indi Surface High Wa Saturatio	drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-Stai 1, 2, 4/ Salt Crust	ned Leaves (A, and 4B)		ept MLR <i>A</i>	. □ W	ater-Stai 4A, an rainage F	ned Leaves (B9) (MLRA 1, 2, d 4B)
rimary Indi Surface High Wa Saturatio	cators (minimum of Water (A1) uter Table (A2) on (A3)		Water-Stai 1, 2, 4,4 Salt Crust Aquatic Inv	ned Leaves (A, and 4B) (B11)	B13)	ept MLRA	W	'ater-Stai 4A, an rainage F ry-Seaso	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10)
rimary Indi Surface High Wa Saturatio Water M	cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1)		Water-Stai 1, 2, 4, Salt Crust Aquatic Inv	ned Leaves (A, and 4B) (B11) vertebrates (E	B13) (C1)		W Di	ater-Stair 4A, an rainage Fry-Seaso aturation	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2)
Vetland Hy Irimary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of Water (A1) heter Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Stai 1, 2, 4, Salt Crust Aquatic Inv Hydrogen Oxidized R	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor	B13) (C1) along Livi		W Di Di Sa (C3) G G	ater-Stai 4A, an rainage F ry-Seaso aturation eomorph	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9
rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres	B13) (C1) along Livi ron (C4)	ing Roots	W Di Di Di Si Si Gi Gi Si Si Si S	rater-Stainage Fry-Seaso aturation eomorph	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2)
Vetland Hy rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)		Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir	B13) (C1) along Livi ron (C4) in Tilled So	ing Roots	Di Di Di Di Di Di Di Di	ater-Stainage Fainage	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3)
Vetland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) In Test (D5)
Vetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) ther Table (A2) on (A3) larks (B1) on Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	drology Indicators cators (minimum of Water (A1) atter Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concavervations:	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (ESulfide Odor Rhizospheres of Reduced In Reduction i Stressed Plablain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: ater Present?	Imagery (B	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced In n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: ter Present?	Imagery (B	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) /ertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla blain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (ing Roots oils (C6) LRR A)	W Di Di Si Si Si Si Si Si	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Penincludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp (B8)	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Vetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Vater Table Saturation P Includes ca Describe Re	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table Seaturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Count	y: Poulsbo		Sampling Da	ate: 02/15/	22
Applicant/Owner: JKM Holdings, LLC				State: WA Sampling Point: S6			
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local reli	ef (concave,	, convex, none): None		Slope (%):	2
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52"	N	Long: 122°39'53.22"W	D	Datum: WG	3S84
Soil Map Unit Name: Alderwood gravelly sandy loam, 0	to 8 percen	t slopes		NWI classificat	tion: None		
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	No (l	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	bed?	Are "Norr	mal Circumstances" preser	nt? Yes	No	
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	(If needed	d, explain any answers in R	emarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects,	importan	t feature	s, etc.
Hydrophytic Vegetation Present? Yes ✔ No							
Hydric Soil Present? Yes No			ne Sampled		. []		
Wetland Hydrology Present? Yes V No		With	nin a Wetlar	nd? Yes No			
Remarks:		•					
Upland, West of Wetland C							
VEGETATION – Use scientific names of plant	ts.						
Fan an dissa	Absolute			Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Species?	Status	Number of Dominant Spo That Are OBL, FACW, or			(A)
2				Total Number of Domina	ınt		
3				Species Across All Strata	_		(B)
4				Percent of Dominant Spe			
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Total C	Cover	That Are OBL, FACW, or	r FAC: 100	0	(A/B)
1. Rubus armeniacus	30	Y	FAC	Prevalence Index work	sheet:		
2				Total % Cover of:			
3				OBL species			_
4				FACW species			_
5	20				x 3 = _		_
Herb Stratum (Plot size: 1m radius	30	= Total C	Cover	FACU species UPL species	x 4 = _ x 5 = _		
1. Agrostis Sp.	90	Y	FAC*	Column Totals: 0		0	
2. Ranunculus repens	10	N	FAC	Column Foldis.	(^) _		_ (D)
3				Prevalence Index			
4				Hydrophytic Vegetation			
5				Rapid Test for Hydro		ation	
6				Dominance Test is >	_		
7				Morphological Adapt		ide support	tina
8				data in Remarks	or on a sepa	rate support	.ii ig
9 10				Wetland Non-Vascul	ar Plants ¹		
11				Problematic Hydroph	nytic Vegetati	ion¹ (Explai	n)
	100	= Total C	Cover	¹ Indicators of hydric soil be present, unless distur			nust
Woody Vine Stratum (Plot size: 1m radius				be present, unless distur	bed of proble	malic.	
1. None	0			Hydrophytic			
2				Vegetation			
% Bare Ground in Herb Stratum 0	0	= Total C	Cover	Present? Yes	✓ No		
Remarks:				.1			
*Agrostis species are conservatively listed as "I	-acultativ	e"					

Depth	Matrix			ox Feature	<u>es</u>	2		
(inches) 0-9	Color (moist) 10YR 3/3	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Sandy Loam	<u>Remarks</u>
9-17	7.5YR 4/4	90	5YR 4/6	10	С	M	Sandy Loam	-
Type: C=C ydric Soil	oncentration, D=De Indicators: (Appli (A1) ipedon (A2)	pletion, RM	=Reduced Matrix, C LRRs, unless othe Sandy Redox (: Stripped Matrix Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark	S=Covere erwise no S5) (S6) Mineral (F Matrix (F2 x (F3) rface (F6)	ed or Coat ted.)	ed Sand G	Indicate 2 cr Red Ven Oth	cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ : In Muck (A10) I Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks) ors of hydrophytic vegetation and and hydrology must be present,
= '	leyed Matrix (S4)		Redox Depress	•	. /			ss disturbed or problematic.
Remarks:	ches):						Hydric Soi	I Present? Yes No ✔
YDROLO	GY drology Indicators	::						
-			ed; check all that app	ly)			Seco	ndary Indicators (2 or more required)
High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	arks (B1) It Deposits (B2) It or Crust (B4) It or Crust (B4) It or Crust (B5) Soil Cracks (B6) It on Visible on Aerial Vegetated Concav		1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressec	es (B13) dor (C1) eres along ed Iron (Cotion in Tille I Plants (D	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Prainage Patterns (B10) Pry-Season Water Table (C2) Paturation Visible on Aerial Imagery (C9) Present Position (D2) Phallow Aquitard (D3) Prost-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
	er Present? Present? resent? pillary fringe)	Yes N Yes N	Depth (inche Depth (inche Depth (inche Depth (inche Depth (inche	s):				y Present? Yes ✓ No 🗌
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty:	Poulsbo		Sampling Date: 02/15/2	22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling Point: S7	
Investigator(s): MK, AR, AH			Se	ection, To	ownship, Range: S15, T26	SN, R1E	
					convex, none): None		2
Subregion (LRR): LRR-A	Lat: 47	°44'20.	.52"N		Long: 122°39'53.22"W	Datum: WG	S84
Soil Map Unit Name: Alderwood gravelly sandy loam, 0	to 8 percer	t slope	es		NWI classifica	tion: None	
Are climatic / hydrologic conditions on the site typical for thi	s time of yea	ar? Ye	s				
Are Vegetation, Soil, or Hydrology signi					mal Circumstances" preser	nt? Yes 🗸 No	
Are Vegetation , Soil , or Hydrology natur					, I, explain any answers in R		
SUMMARY OF FINDINGS – Attach site map			,			,	s, etc.
	<u>_</u> 1	<u> </u>					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes V No V	}	l	Is the	Sampled			
Wetland Hydrology Present?	1	'	within	a Wetlan	nd? Yes No	o v	
Remarks:	•						
Upland, West of Wetland C							
VEGETATION – Use scientific names of plan	ıts.						
- Company Emradius	Absolute			ndicator	Dominance Test works	heet:	
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Spec	ies?	Status	Number of Dominant Sp That Are OBL, FACW, o		(A)
2.					Total Number of Domina		` ,
3					Species Across All Strat	_	(B)
4					Percent of Dominant Sp	ecies	
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Tot	tal Cov	er er	That Are OBL, FACW, o		(A/B)
1. Rubus armeniacus	30	Υ	F	FAC	Prevalence Index work	sheet:	
2					Total % Cover of:		
3.					OBL species	x 1 = 0	=:
4						x 2 = 0	
5.						x 3 = 0	
Herb Stratum (Plot size: 1m radius	30	= Tot	tal Cov	er er		x 4 = 0	_
1. Agrostis Sp.	50	Υ	F	FAC*	UPL species		- (D)
2. Juncus effusus	20	Υ		FACW	Column Totals: 0	(A) <u>0</u>	_ (B)
3. Ranunculus repens	15	N	F	FAC	Prevalence Index	= B/A =	
4					Hydrophytic Vegetation		
5.		· ——			Rapid Test for Hydro	. , .	
6					Dominance Test is >		
7					Prevalence Index is	≤3.0 tations¹ (Provide supporti	na
8					data in Remarks	or on a separate sheet)	ng
9 10					Wetland Non-Vascul	ar Plants ¹	
11.					Problematic Hydroph	hytic Vegetation ¹ (Explain	1)
	85	= Tot	tal Cov	er	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology m	nust
Woody Vine Stratum (Plot size: 1m radius		3			be present, unless distu	bed of problematic.	
1. None	0	·			Hydrophytic		
2					Vegetation		
% Bare Ground in Herb Stratum 15	0	= Tot	tal Cov	er/	Present? Yes	No No	
Remarks:					<u>I</u>		
*Agrostis species is conservatively listed as "F	acultative	"					

0-6 10YR 3/1 100 Sandy Loam 6-17 10YR 3/3 100 Sandy Loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. T-Location: PL=Porr Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problem Histosol (A1) Histosol (A2) Stripped Matrix (S6) Red Parent Material Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shalow Dark Surface (A12) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Dark Surface (F6) Thick Dark Surface (A12) Redox Dark Surface (F6) Present Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Dark Surface (F7) Wetland hydrology mulless disturbed or p. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yee Remarks: Yee Remarks: Surface Water (A1) Agal Mat or Crust (B4) Aquatic Invertebrates (B13) Drainage Patterns Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns Water Marks (B1) Aquatic Invertebrates (B13) Drainage Patterns Surface (B4) Presence of Reduced Iron (C4) Saturation (Visible on Aerial Imagery (B7) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Invariace (B13) Recent Iron Reduction in Tilled Soils (C6) Raised Arti Mount Invariace (B13) Recent Iron Reduction in Tilled Soils (C6) Raised Arti Mount Invariace (B13) Recent Iron Reduction in Tilled Soils (C6) Raised Arti Mount Invariace (B13) Raised Arti Mount Invariace (B13)	marks
Contentration Depletion RM=Reduced Matrix CS=Covered or Coated Sand Grains Coation: PL=Pore Phydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problem Histosol (A1) Sandy Redox (S5) Persent Muck (A10) Persent Phydric Soil Red Parent Material Phydrogen Sulfide (A4) Depleted Matrix (S6) Persent Phydrogen Sulfide (A4) Depleted Matrix (F2) Other (Explain in Red Parent Material Phydrogen Sulfide (A1) Depleted Matrix (F3) Persent Phydrogen Sulfide (A1) Depleted Matrix (F3) Persent Phydrogen Sulfide (A2) Phydrogen Sulfide (A2) Phydrogen Sulfide (A2) Phydrogen Sulfide (A2) Phydrogen Sulfide (A3) Pressent Phydrogen Sulfide (A3) Pressent Phydrogen Sulfide (A3) Pressent Phydrogen Sulfide (A3) Pressent Phydrogen Sulfide Odor (C1) Saturation (A3) Pressent Phydrogen Sulfide Odor (C1) Saturation (A3) Pressence of Reduced (P7) Saturation (A3) Pressence of Reduced (P7) Pressent Phydrogen Sulfide Odor (C1) Saturation (P7) Pressent Phydrogen Sulfide Odor (C1) Saturation (P7) Pressent Phydrogen Sulfide Odor (C1) Saturation (P7) Pressent Phydrogen Sulfide Odor (C1) Pressent Phydrogen Sulfide Odor (C1) Phydrogen Sulfi	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Location: PL=Pore Ptydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problem Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Perent Material Histic Epipedon (A2) Stripped Matrix (S6) Qerpet MLRA 1) Very Shallow Dark SHotgoen Sulfide (A4) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark SHotgoen Sulfide (A4) Depleted Matrix (F2) Other (Explain in Re Depleted Below Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F6) Indicators of hydrophytic wetland hydrology mulless disturbed or p Restrictive Layer (if present): Type: Depleted Dark Surface (F7) Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Yeremarks: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Yeremarks: Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histoson (A1) Histoson (A2) Histoson (A2) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (S6) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Geyed Matrix (F2) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology mucless disturbed or p Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water-Stained Leaves (B9) (except MLRA High Water Table (A2) High Water Table (A2) Hydrogen Sulfide Odor (C1) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Posit Algal Mat or Crust (B4) Frost-Heave Hum Jerost-Heave Hum Incoheronic for Problem. Indicators (A10) Red Parent Material Per Poster (F1) Red Parent Material Red Parent Material Per Post Muck (B1) Red Parent Material Per Post Muck (B1) Sediment Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Posit Algal Mat or Crust (B4) Frost-Heave Hum Incoheronic for Problem. Sandy Mucky Mineral (A10) Hundator (San) Sparsely Vegetated Concave Surface (B8)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Redox Dark Surface (F7) Wetland Hydrology Indicators: Type: Depth (inches): Primary Indicators (minimum of one required; check all that apply) Saurface Water (A1) High Water Table (A2) Vater Marks (B1) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Agal Mat or Crust (B4) Present of Recent Iron Redox Iron Remarks) Narrace Soil Cracks (B6) Indicators (Matrix (S4) Redox Darks Viriaer (F7) Redox Darks Surface (F7) Water All Migh Water Marks (B4) Redox Depressions (F8) Hydric Soil Present? Yeararks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water Marks (B4) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Patterns Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (Visible Odor (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (Iron Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum Sparsely Vegetated Concave Surface (B8)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (F1) (except MLRA 1) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Redox Dark Surface (F7) Wetland Hydrology Indicators: Type: Depth (inches): Primary Indicators (minimum of one required; check all that apply) Saurface Water (A1) High Water Table (A2) Vater Marks (B1) Salt Crust (B11) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Agal Mat or Crust (B4) Present of Recent Iron Redox Iron Remarks) Narrace Soil Cracks (B6) Indicators (Matrix (S4) Redox Darks Viriaer (F7) Redox Darks Surface (F7) Water All Migh Water Marks (B4) Redox Depressions (F8) Hydric Soil Present? Yeararks: YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators Water Marks (B4) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Patterns Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation (Visible Odor (C3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (Iron Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum Sparsely Vegetated Concave Surface (B8)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
Histosol (A1) Histosol (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F2) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Redox Dark Surface (F7) Redox Depressions (F8) Redox Depressions (F8) Redox Dark Surface (F7) Redox Depressions (F8) Redox Depression (F8)	
Histic Epipedon (A2) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark S Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Wetland Hydrology mules disturbed or present? Type: Depth (inches): Hydric Soil Present? Primary Indicators (minimum of one required; check all that apply) Sardace Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B6) Surface Soil Cracks (B6) Surface Nater (A1) Sparsely Vegetated Concave Surface (B8)	itic Hydric Soils ³ :
Black Histic (A3)	(TEQ)
Hydrogen Sulfide (A4)	, ,
Depleted Below Dark Surface (A11)	, ,
Sandy Mucky Mineral (S1)	,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or prestrictive Layer (if present): Type:	vegetation and
Restrictive Layer (if present): Type: Depth (inches):	
Type:	oblematic.
Depth (inches):	
Vetland Hydrology Indicators: Secondary Indicators	
Vetland Hydrology Indicators: Irimary Indicators (minimum of one required; check all that apply) 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 Imagery (B7) Separable Water All that apply) Secondary Indicators Secondary Indicators Secondary Indicators Secondary Indicators Water-Stained Leaves (B9) (except MLRA 4A, and 4B) Aquatic Invertebrates (B13) Drainage Patterns Aquatic Invertebrates (B13) Dry-Season Water Saturation Visible Saturation Visible Geomorphic Posit Shallow Aquitard (C4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum	s∐ No[✔
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saltration (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 Imagery (B7) Surface Soil Cracks (B8) Water All that apply) Water Stained Leaves (B9) (except MLRA) Water Marks (B9) Algal Crust (B11) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dry-Season Water Marks (B1) Saturation Visible Odor (C1) Saturation Visible Odor (C3) Geomorphic Posity Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum Sparsely Vegetated Concave Surface (B8)	
Surface Water (A1) High Water Table (A2) Saturation (A3) Salt Crust (B11) 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 Imagery (B7) Sparsely Vegetated Concave Surface (B8) Water-Stained Leaves (B9) (except MLRA Hydrogen Sulfied Leaves (B9) (except MLRA AtA, and 4B) A4A, and 4B) A	
High Water Table (A2) Saturation (A3) Salt Crust (B11) 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 Imagery (B7) Sparsely Vegetated Concave Surface (B8)	(2 or more required)
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 Imagery (B7) Sparsely Vegetated Concave Surface (B8) Saturation (B11) Aquatic Invertebrates (B13) Aquatic Invertebrates (B13) Dry-Season Water of Dry-Season Wate	aves (B9) (MLRA 1, 2
Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Marks (B2) Hydrogen Sulfide Odor (C1) Saturation Visible Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Positic Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounce Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum	
Sediment Deposits (B2) 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) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Posit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mound Other (Explain in Remarks) Frost-Heave Hum	` ,
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) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Frost-Heave Hum	` ,
Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) Frost-Heave Hum	
Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1) (LRR A) Other (Explain in Remarks) FAC-Neutral Test Characteristic Cf Stunted or Stressed Plants (D1) (LRR A) Frost-Heave Hum	` ,
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hum Sparsely Vegetated Concave Surface (B8)	` '
Sparsely Vegetated Concave Surface (B8)	
	Hocks (D1)
ield Observations:	
Surface Water Present? Yes No 🗸 Depth (inches):	
Vater Table Present? Yes V No Depth (inches): 16	
Saturation Present? Yes V No Depth (inches): 2 Wetland Hydrology Present? Yes	s No
includes capillary fringe)	UIT 1401
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Project/Site: 21199 - Viking Ave NW	(City/Co	ounty: Pouls	bo	Sampling D	Date: 02/15	/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S8		
Investigator(s): MK, AR, AH			Section,	Township, Range: S15, T26	3N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local	relief (conca	ve, convex, none): None		_ Slope (%)	: 2
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.	52"N	Long: 122°39'53.22"W	<u>'</u>	Datum: Wo	GS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent slo	pes		NWI classifica	tion: None	;	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	s No				
Are Vegetation, Soil, or Hydrology signifi				Iormal Circumstances" prese	nt? Yes	No∏	
Are Vegetation , Soil , or Hydrology natura				ded, explain any answers in F		- —	
SUMMARY OF FINDINGS – Attach site map						nt feature	es, etc.
Hydrophytic Vegetation Present? Yes ✓ No							
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No Yes			s the Samp				
Wetland Hydrology Present? Yes ✓ No		١	within a Wet	tland? Yes N			
Remarks:		t					
Upland, west of Wetland C							
VEGETATION – Use scientific names of plan	ts.						
T. O			nant Indicato		sheet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Speci	ies? Status	Number of Dominant Sp That Are OBL, FACW, o			(A)
2.							(71)
3.				Total Number of DominaSpecies Across All Strat			(B)
4							()
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Tot	al Cover	Percent of Dominant Sp That Are OBL, FACW, o		00	(A/B)
1. None	0			Prevalence Index work	sheet:		
2.				Total % Cover of:	M	lultiply by:	
3				OBL species	x 1 =	0	_
4				FACW species			_
5				-	x 3 =		_
Herb Stratum (Plot size: 1m radius	0	= Tot	al Cover	FACU species			
1. Agrostis Sp.	95	Υ	*FAC		x 5 =	0	
2. Prunella vulgaris	15	N		Column rotals.	(A)		(B)
3. Ranunculus repens	10	N		Prevalence Index	= B/A =		
4. Juncus effusus	10	N		Hydrophytic Vegetatio			
5				Rapid Test for Hydro		etation	
6				Dominance Test is >	_		
7				Prevalence Index is Morphological Adap		wida auana	tina
8				data in Remarks	or on a sep	arate sheet))
9 10				Wetland Non-Vascu	lar Plants ¹		
11.				Problematic Hydrop	nytic Vegeta	ition¹ (Expla	in)
	130		al Cover	Indicators of hydric soil be present, unless distu			must
Woody Vine Stratum (Plot size: 1m radius				be present, unless dista	——————————————————————————————————————	Terriatic.	
1. None	0			Hydrophytic			
2				- Vegetation		٦	
% Bare Ground in Herb Stratum 0	0	= Iot	al Cover	Present? Yes	No_	J	
Remarks:							
Agrostis Species is conservatively listed as "Fa	cultative"						

" · · · · · · · · · · · · · · · · · · ·	Red	lox Features			
(inches) Color (moist) %			pe ¹ Loc ²	Texture	Remarks
0-12 10YR 3/2 10	0				
12-16 10YR 4/6 10	0				
				-	
					
				-	-
				-	
Type: C=Concentration, D=Depletion	DM-Poduced Metrix C	CC-Covered or	Cooted Sand C	troing ² Lo	cation: PL=Pore Lining, M=Matrix.
lydric Soil Indicators: (Applicable			Coaled Sand G		ors for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Redox			_	n Muck (A10)
Histic Epipedon (A2)	Stripped Matrix			_	Parent Material (TF2)
Black Histic (A3)		Mineral (F1) (ex	ccept MLRA 1)	_	Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed		,		er (Explain in Remarks)
Depleted Below Dark Surface (A11	· = ·			-	
Thick Dark Surface (A12)	Redox Dark Su	, ,			ors of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark				nd hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depres	sions (F8)		unles	s disturbed or problematic.
estrictive Layer (if present): Type:					
Depth (inches):					
Deptir (inches)				Hydric Soil	Present? Yes No
YDROLOGY					
Vetland Hydrology Indicators:	equired; check all that app	oly)		Seco	ndary Indicators (2 or more required)
Vetland Hydrology Indicators: Primary Indicators (minimum of one re	_		39) (except MLI		• • • • • •
Vetland Hydrology Indicators: Trimary Indicators (minimum of one re Surface Water (A1)	☐ Water-Sta	ained Leaves (E	39) (except MLI		ater-Stained Leaves (B9) (MLRA 1, 2,
Vetland Hydrology Indicators: Irimary Indicators (minimum of one re Surface Water (A1) High Water Table (A2)	☐ Water-Sta	ained Leaves (B IA, and 4B)	9) (except MLI	RA W	• • • • • • • • • • • • • • • • • • • •
Vetland Hydrology Indicators: rimary Indicators (minimum of one re Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Sta 1, 2, 4 Salt Crus	ained Leaves (B IA, and 4B)		RA W	vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Vetland Hydrology Indicators: Irimary Indicators (minimum of one re Surface Water (A1) High Water Table (A2)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir	ained Leaves (E IA, and 4B) t (B11)	13)	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Vetland Hydrology Indicators: rimary Indicators (minimum of one re Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger	ained Leaves (E 1A, and 4B) t (B11) nvertebrates (B	13) C1)	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one re Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized	ained Leaves (E IA, and IB) t (B11) nvertebrates (B' n Sulfide Odor (I	I3) C1) Ilong Living Roc	RA W D D S Dts (C3) G	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Vetland Hydrology Indicators: Irimary Indicators (minimum of one re Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Leaves (E IA, and 4B) t (B11) nvertebrates (B' n Sulfide Odor (0 Rhizospheres a	I3) C1) Ilong Living Roo In (C4)	RA W D D S Ots (C3) G S	Vater-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)
Vetland Hydrology Indicators: Irimary Indicators (minimum of one recognitions) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ire	ained Leaves (E IA, and 4B) t (B11) nvertebrates (B ² n Sulfide Odor (G Rhizospheres at of Reduced Iro	13) C1) Ilong Living Roo In (C4) Tilled Soils (C6	RA	rater-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)
Vetland Hydrology Indicators: Primary Indicators (minimum of one reserved) 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)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Leaves (E A, and 4B) t (B11) nvertebrates (B ² n Sulfide Odor (G Rhizospheres a of Reduced Iro on Reduction in	13) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA	rater-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)
Vetland Hydrology Indicators: Primary Indicators (minimum of one re 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)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ained Leaves (E A, and 4B) t (B11) nvertebrates (B Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in or Stressed Plan	13) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA	rater-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)
Vetland Hydrology Indicators: Primary Indicators (minimum of one results) 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 Image Sparsely Vegetated Concave Surface	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ained Leaves (E A, and 4B) t (B11) nvertebrates (B Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in or Stressed Plan	13) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA	rater-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)
Primary Indicators (minimum of one remary Indicators (minimum of one remary Indicators (minimum of one remark) 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 Image Sparsely Vegetated Concave Surface (B6)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of	ained Leaves (E A, and 4B) t (B11) nvertebrates (B Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in or Stressed Plan splain in Remark	13) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA	rater-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)
Primary Indicators (minimum of one re 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 Image Sparsely Vegetated Concave Surface Gurface Water Present? Yes	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8)	ained Leaves (E A, and 4B) t (B11) nvertebrates (B Sulfide Odor (C Rhizospheres a of Reduced Iro on Reduction in or Stressed Plan splain in Remark	13) C1) Ilong Living Roon In (C4) Tilled Soils (C6 ats (D1) (LRR A	RA	rater-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)
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 Image Sparsely Vegetated Concave Surfaceld Observations: Surface Water Present? Water Table Present? Yes Saturation Present? Yes	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Stunted of Ary (B7) Depth (inches) Depth (inches)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BAA) n Sulfide Odor (CAA) n Sulfide Odor (CA	(13) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S Dts (C3) G G S O S O F F F	rater-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)
Primary Indicators (minimum of one re 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 Image Sparsely Vegetated Concave Surface Water Present? Ves Water Table Present? Yes Saturation Present?	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8) No Depth (inchest) No Depth (inchest)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BA) n Sulfide Odor (CAA) n Feduced Iron Reduction in Stressed Plant (CAA) copy (CAA	I3) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S ots (C3) G G S O F O D S	rater-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) rost-Heave Hummocks (D7)
Primary Indicators (minimum of one re 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 Image Sparsely Vegetated Concave Surface Water Present? Ves Water Table Present? Yes Saturation Present? Yes	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8) No Depth (inchest) No Depth (inchest)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BA) n Sulfide Odor (CAA) n Feduced Iron Reduction in Stressed Plant (CAA) copy (CAA	I3) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S ots (C3) G G S O F O D S	rater-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) rost-Heave Hummocks (D7)
Vetland Hydrology Indicators: Primary Indicators (minimum of one re 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 Image Sparsely Vegetated Concave Surface Water Present? Vater Table Present? Ves Vaturation Present? Ves Vaturation Present? Ves Ves Vesiculation Present?	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8) No Depth (inchest) No Depth (inchest)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BA) n Sulfide Odor (CAA) n Feduced Iron Reduction in Stressed Plant (CAA) copy (CAA	I3) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S ots (C3) G G S O F O D S	rater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) raturation Visible on Aerial Imagery (C9) reomorphic Position (D2) rhallow Aquitard (D3) AC-Neutral Test (D5) raised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Vetland Hydrology Indicators: Primary Indicators (minimum of one regression of some regr	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8) No Depth (inchest) No Depth (inchest)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BA) n Sulfide Odor (CAA) n Feduced Iron Reduction in Stressed Plant (CAA) copy (CAA	I3) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S ots (C3) G G S O F O D S	rater-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) rost-Heave Hummocks (D7)
Vetland Hydrology Indicators: Irimary Indicators (minimum of one re 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 Image Sparsely Vegetated Concave Surface Water Present? Vater Table Present? Vater Table Present? Ves Vater Table Present? Ves Vater Table Present? Ves Vater Table Present? Ves Ves Ves Ves Ves Ves Ves Ves	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Extended B8) No Depth (inchest) No Depth (inchest)	ained Leaves (EAA, and 4B) t (B11) nvertebrates (BA) n Sulfide Odor (CAA) n Feduced Iron Reduction in Stressed Plant (CAA) copy (CAA	I3) C1) Ilong Living Roo In (C4) Tilled Soils (C6 Its (D1) (LRR A	RA D D D S ots (C3) G G S O F O D S	rater-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) rost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW	(City/Coun	ty: Poulsbo		Sampling Date: 02/15/22	
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S9	
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E	
					Slope (%): 2	
Subregion (LRR): LRR-A	Lat: 47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WGS8	84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6				NWI classifica		
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	No (I			
Are Vegetation, Soil, or Hydrology signif	•			mal Circumstances" presei	nt? Yes 🗸 No	
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in F		
SUMMARY OF FINDINGS – Attach site map						etc.
Hydrophytic Vegetation Present? Yes No						
Hydric Soil Present? Yes No			he Sampled			
Wetland Hydrology Present? Yes No		wit	hin a Wetlar	nd? Yes N) V	
Remarks:					-	
Upland, southwest of Wetland B						
VEGETATION – Use scientific names of plan						
VEGETATION – Use scientific frames of plan	Absolute	Dominan	nt Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 5m radius	% Cover			Number of Dominant Sp		
Pseudotsuga menziesii	60	Y	FACU	That Are OBL, FACW, o		١)
2. Thuja plicata	20	<u>Y</u>	FAC	Total Number of Domina	ant	
3. Tsuga heterophylla	10	N	FACU	Species Across All Strat	a: <u>4</u> (B))
4				Percent of Dominant Sp	ecies	
Sapling/Shrub Stratum (Plot size: 3m radius	90	= Total (Cover	That Are OBL, FACW, o	r FAC: <u>25</u> (A/	/B)
Mahonia nervosa	35	Υ	FACU	Prevalence Index work	sheet:	
2. Gaultheria shallon	15	Υ	FACU	Total % Cover of:	Multiply by:	
3.				OBL species	x 1 = 0	
4				FACW species	x 2 = 0	
5				FAC species	x 3 = <u>0</u>	
Light Outstand (Distriction 1m radius	50	= Total (Cover		x 4 = 0	
Herb Stratum (Plot size: 1m radius					x 5 = 0	
1				Column Totals: 0	(A) <u>0</u> ((B)
2				Prevalence Index	= B/A =	
4				Hydrophytic Vegetatio		
5				Rapid Test for Hydro	phytic Vegetation	
6				Dominance Test is >	·50%	
7				Prevalence Index is	≤3.0 ¹	
8					tations ¹ (Provide supporting or on a separate sheet)	j
9				Wetland Non-Vascul	• ,	
10					nytic Vegetation ¹ (Explain)	
11				 	and wetland hydrology mus	st
Woody Vine Stratum (Plot size: 1m radius	0	= Total (Cover	be present, unless distu		
1. None	0					
2				Hydrophytic Vegetation		
	0	= Total (Cover	Present? Yes	No 🗸	
% Bare Ground in Herb Stratum 100						
Remarks:						
Agrostis species is conservatively listed as "Fa	cultative"					

Depth	Matrix			x Features		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-16	10YR 4/4	100	=				Sandy Loam	Dry	
 -				-					
				=					
				-			-	-	
								-	
	-		=						
Гуре: С=С	oncentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covered	or Coate	ed Sand Gr	ains. ² Lo	cation: F	PL=Pore Lining, M=Matrix.
•			LRRs, unless other						roblematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S	S5)			2 cn	n Muck (A10)
_	ipedon (A2)		Stripped Matrix	. ,					Material (TF2)
Black Hi			Loamy Mucky M		(except	MLRA 1)			Dark Surface (TF12)
_ ` `	n Sulfide (A4)	(0.4.4)	Loamy Gleyed N				Othe	er (Expla	in in Remarks)
	l Below Dark Surfac irk Surface (A12)	ce (A11)	Depleted Matrix Redox Dark Sur	. ,			3Indicate	ore of by	drophytic vegetation and
=	lucky Mineral (S1)		Depleted Dark S	` ,	7)			-	plogy must be present,
= '	leyed Matrix (S4)		Redox Depressi	,	,				ped or problematic.
	Layer (if present):		<u> </u>						·
Type:									
Depth (in	ches):						Hydric Soil	Presen	t? Yes No ✔
emarks:							1		
YDROLO	GY								
-	drology Indicators								
rimary Indi	cators (minimum of	one require	d; check all that appl	y)			Seco	ndary Ind	dicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	s (B9) (e	xcept MLR	RA 🔲 W		ined Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		1, 2, 4	A, and 4B)				4A, an	d 4B)
Saturation	on (A3)		Salt Crust	(B11)			□□□	rainage l	Patterns (B10)
Water M	arks (B1)		Aquatic Inv	ertebrates/	(B13)		□ Þ	ry-Seaso	on Water Table (C2)
Sedimer	t Deposits (B2)		Hydrogen :	Sulfide Ode	or (C1)		∐ s	aturation	Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidized R	hizosphere	es along	Living Roo	ts (C3) 📙 G	eomorph	nic Position (D2)
Algal Ma	t or Crust (B4)		Presence of	of Reduced	I Iron (C∠	!)	∐ s	hallow A	quitard (D3)
_	osits (B5)		Recent Iron			` '			ral Test (D5)
_	Soil Cracks (B6)		Stunted or		,	1) (LRR A)			t Mounds (D6) (LRR A)
=	on Visible on Aerial		· -	lain in Ren	narks)		L F	rost-Hea	ve Hummocks (D7)
	Vegetated Concav	e Surface (B8)						
ield Obser	vations:	_	_						
Surface Wat	er Present?	Yes No	Depth (inches	s):					
Vater Table	Present?		Depth (inches	s):					
Saturation P		Yes No	Depth (inches	s):		Wetla	and Hydrolog	y Prese	nt? Yes No
	oillary fringe) corded Data (strea	m dalide m	onitoring well, aerial	nhotos pro	vioue in	enections)	if available.		
rescribe Re	corueu Data (Sireal	ıı yauye, III	ormornig well, aerlal	priotos, pre	vious ifit	ppecii0115),	ıı avallabl e .		
Domosile:									
Remarks:									

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date	e: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Poir	nt: S10
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	N, R1E	
Landform (hillslope, terrace, etc.): Hillslope		Local rel	ief (concave	, convex, none): None	S	lope (%): 2
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Dat	tum: WGS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent slo	pes		NWI classificat	tion: None	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes	7 No (1			
Are Vegetation, Soil, or Hydrology signif				mal Circumstances" presen	nt? Yes	40
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in R		<u></u>
SUMMARY OF FINDINGS – Attach site map						features, etc.
Hydrophytic Vegetation Present? Yes ✔ No						
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No Yes			he Sampled			
Wetland Hydrology Present?		wit	hin a Wetlar	nd? Yes No)[[
Remarks:		I				
Out of Wetland C						
VEGETATION – Use scientific names of plan						
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator ? Status	Dominance Test works		
1. Thuja plicata	5	Υ	FAC	Number of Dominant Spe That Are OBL, FACW, or		(A)
2. Pseudotsuga menziesii	5	Y	FACU	Total Number of Domina		
3			·	Species Across All Strata	_	(B)
4				Percent of Dominant Spe	ecies	
Sapling/Shrub Stratum (Plot size: 3m radius	10	= Total (Cover	That Are OBL, FACW, or		(A/B)
1. None	0			Prevalence Index works	sheet:	
2			· 	Total % Cover of:	Multi	ply by:
3				OBL species	x 1 = <u>0</u>	
4		-		FACW species		
5			·	·	x 3 = 0	
Herb Stratum (Plot size: 1m radius	0	= Total (Cover	FACU species		
1. Agrostis Sp.	95	Υ	FAC*	UPL species Column Totals: 0	x 5 = 0 (A) 0	
2. Ranunculus repens	20	N	FAC	Column Totals.	(A) <u></u>	(B)
3. Rubus ursinus	20	N	FACU	Prevalence Index :		
4				Hydrophytic Vegetation		
5				Rapid Test for Hydro		ion
6				Dominance Test is >	_	
7				Morphological Adapta		e supporting
8				data in Remarks		
9 10				Wetland Non-Vascula		
11.				Problematic Hydroph		, , ,
	135	= Total (Cover	¹ Indicators of hydric soil a be present, unless distur		
Woody Vine Stratum (Plot size: 1m radius	•			be present, unless distan		
1. None	0			Hydrophytic		
2	0			Vegetation Present? Yes	✓ No	
% Bare Ground in Herb Stratum 100	<u> </u>	= Total (Jovel	. 1000111: 165		
Remarks:						

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/2	100					Sandy Loam	
7-17	10YR 3/4	100					Sandy Loam	
	-			_	·			
				-				
			-	-				
								
			=Reduced Matrix, CS			ed Sand Gr		ation: PL=Pore Lining, M=Matrix.
		cable to all	LRRs, unless other	rwise note	ed.)		Indicator	rs for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S				_	Muck (A10)
	pipedon (A2)		Stripped Matrix	. ,	\	MI DA 4\		Parent Material (TF2) Shallow Dark Surface (TF12)
Black Hi	n Sulfide (A4)		Loamy Mucky M Loamy Gleyed N			(WILKA 1)	`	r (Explain in Remarks)
_ ` `	d Below Dark Surfac	ce (A11)	Depleted Matrix		•			(Explain in Nomano)
	ark Surface (A12)	,	Redox Dark Sur	. ,			³ Indicato	rs of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)			nd hydrology must be present,
	leyed Matrix (S4)		Redox Depress	ions (F8)			unless	s disturbed or problematic.
	Layer (if present):							
Type:	ches):							
Deptil (iii	cnes)						Hydric Soil	Present? Yes No
Remarks:								
YDROLO	GY							
Wetland Hy	drology Indicators	s:						
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			<u>Secon</u>	dary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	es (B9) (e	xcept MLR	RA 🔲 Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa	ter Table (A2)		_	A, and 4B))			4A, and 4B)
✓ Saturation	on (A3)		Salt Crust	(B11)			☐ Dra	ainage Patterns (B10)
_	arks (B1)		Aquatic Inv	ertebrates	s (B13)		=	y-Season Water Table (C2)
_	nt Deposits (B2)		Hydrogen :		` '			turation Visible on Aerial Imagery (C9)
= '	oosits (B3)		Oxidized R		_	_		eomorphic Position (D2)
_	it or Crust (B4)		Presence o		,	,		allow Aquitard (D3)
	osits (B5)		Recent Iron			,	′ =	C-Neutral Test (D5)
_	Soil Cracks (B6)		Stunted or			1) (LRR A)	_	uised Ant Mounds (D6) (LRR A)
=	on Visible on Aerial		· — · ·	nain in Rei	marks)		☐ Fro	ost-Heave Hummocks (D7)
ield Obser	Vegetated Concav	re Surface (D0)			<u> </u>		
		Vaa 🗖 N	Depth (inches	٠١.				
			= ' '	,				
Water Table		_	Depth (inches			384-41		. P
Saturation P includes ca	resent'? pillary fringe)	Yes 🗸 N	Depth (inches	s): <u> </u>		weti	and Hydrology	Present? Yes 🗸 No
		m gauge, m	onitoring well, aerial	photos, pro	evious ins	spections),	if available:	
Domorko								
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty:	Poulsbo		Samplin	g Date: 02/1	5/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Samplin	g Point: S11	
Investigator(s): MK, AR, AH			S	ection, To	wnship, Range: S15, T26	6N, R1E		
					convex, none): None		Slope (%	ဖ်): <u>2</u>
Subregion (LRR): LRR-A	Lat: <u>4</u> 7	°44'20).52"N		Long: 122°39'53.22"W	1	Datum: W	VGS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent sl	opes			NWI classifica	ıtion: No	ne	
Are climatic / hydrologic conditions on the site typical for thi	is time of ye	ar? Ye	es 🗸	No (If	no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signi	ficantly distu	urbed?		Are "Norn	nal Circumstances" prese	nt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natur	ally problem	atic?	(If needed	, explain any answers in F	Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samı	pling	point lo	ocations, transects,	, import	ant featur	es, etc.
Hydrophytic Vegetation Present? Yes ✔ No	1							
Hydric Soil Present? Hydric Soil Present? Yes No	1			Sampled		. —		
Wetland Hydrology Present? Yes V No]		within	a Wetlan	d? Yes ✓ N	I		
Remarks:								
In Wetland C Near WRC3								
VEGETATION – Use scientific names of plar	nts.							
To compare the second s	Absolute			ndicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 5m radius 1. Thuja plicata	% Cover 40	Spec Y		Status FAC	Number of Dominant Sp That Are OBL, FACW, o		1	(A)
2. Pseudotsuga menziesii*	15	N		FACU				_ (A)
3	-				Total Number of Domina Species Across All Strat		1	(B)
4					·	-		_ (-/
a it (a) the control am radius	55	_ = To	tal Cov	er	Percent of Dominant Sp That Are OBL, FACW, o		100	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. None	0				Prevalence Index work	csheet:		
1. None 2					Total % Cover of:		Multiply by:	
3.					OBL species			
4					FACW species	x 2	2 = 0	
5							3 = 0	
Herb Stratum (Plot size: 1m radius	0	_ = To	tal Cov	er	FACU species			
1. None	0					x 5		(D)
2.					Column Totals: 0	(A)		(B)
3.					Prevalence Index	= B/A =		
4					Hydrophytic Vegetatio			
5					Rapid Test for Hydro		egetation	
6					Dominance Test is >			
7					Prevalence Index is			
8					Morphological Adap data in Remarks			
9					Wetland Non-Vascu	lar Plants	1	
10 11.		-			Problematic Hydrop	hytic Vege	etation ¹ (Expl	ain)
	_	= To	tal Cov	er	¹ Indicators of hydric soil be present, unless distu			/ must
Woody Vine Stratum (Plot size: 1m radius		_			be present, unless distu	inea oi bi	obiematic.	
1. None	0				Hydrophytic			
2	_				Vegetation	Na Na		
% Bare Ground in Herb Stratum 100	0	_ = To	tal Cov	er	Present? Yes	No No	Ш	
Remarks:					1			
*Pseudotsuga menziesii is not rooted in WRC								

Depth	Matrix			ox Features		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/1	100					Sandy Loam	
6-16	10YR 2/1	90	10YR 4/6	10			Sandy Loam	
								. <u> </u>
		-						
1- 00							. 21	
•			I=Reduced Matrix, C I LRRs, unless othe			ed Sand Gr		cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histosol		cable to al	Sandy Redox (u.,		_	n Muck (A10)
_	oipedon (A2)		Stripped Matrix				_	Parent Material (TF2)
Black Hi			Loamy Mucky	. ,	(except	MLRA 1)	_	y Shallow Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy Gleyed		` -	,		er (Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Matri	. ,			_	
=	ark Surface (A12)		Redox Dark Su	` ,				ors of hydrophytic vegetation and
= '	lucky Mineral (S1)		Depleted Dark	•	')			and hydrology must be present,
	leyed Matrix (S4)		Redox Depress	sions (F8)			unle	ss disturbed or problematic.
Type:	Layer (if present):							
,,	ches):						l a.	
Dopuii (iii	C11C3)						Hydric Soi	I Present? Yes ✓ No
YDROLO	GY							
	drology Indicators	:						
Primary Indi	cators (minimum of	one require	ed; check all that app	oly)			Seco	endary Indicators (2 or more required)
Surface	Water (A1)		☐ Water-Sta	ined Leave	s (B9) (e	xcept MLR	RA 🔲 V	Vater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		1, 2, 4	A, and 4B)				4A, and 4B)
✓ Saturation	on (A3)		Salt Crust	(B11)				Prainage Patterns (B10)
Water M	arks (B1)		Aquatic In	vertebrates	(B13)			9ry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen	Sulfide Ode	or (C1)		□s	saturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized	Rhizosphere	es along	Living Roo	ts (C3) 🔲 G	Geomorphic Position (D2)
Algal Ma	it or Crust (B4)		Presence	of Reduced	I Iron (C4	!)	<u> </u>	hallow Aquitard (D3)
Iron Dep	osits (B5)		Recent Iro	on Reductio	n in Tille	d Soils (C6) <u> </u>	AC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted o	r Stressed F	Plants (D	1) (LRR A)) <u></u>	Raised Ant Mounds (D6) (LRR A)
Inundati	on Visible on Aerial	Imagery (B	7) U Other (Ex	plain in Ren	narks)		∐ F	rost-Heave Hummocks (D7)
Sparsely	Vegetated Concav	e Surface ((B8)					
ield Obser		_						
Surface Wat			o Depth (inche					
Vater Table		_	o Depth (inche		<u></u>			<u> </u>
Saturation P		Yes 🗸 N	o Depth (inche	s): Surface		Wetl	and Hydrolog	yy Present? Yes 🗸 No 🗌
	pillary fringe) corded Data (strear	n gauge, m	onitoring well, aerial	photos, pre	vious ins	pections).	if available:	
	(- :	3 3·,···	3 2 , 2 2			//		
Remarks:								

Project/Site: 21199 - Viking Ave NW	(City/County	r: Poulsbo		Sampling D	Date: 02/18/	/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling F	oint: S12	
Investigator(s): MK, AR, AH			Section, To	wnship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Depression		Local relie	f (concave,	convex, none): None		Slope (%)	2
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52"	N	Long: 122°39'53.22"W		Datum: WO	GS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classificat	tion: None	!	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	No (If	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	rbed?	Are "Norn	mal Circumstances" presen	nt? Yes	No	
Are Vegetation, Soil, or Hydrology natura	Ily problema	atic?	(If needed	, explain any answers in R	emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point lo	ocations, transects,	importar	nt feature	s, etc.
Hydrophytic Vegetation Present? Yes ✔ No			_				
Hydric Soil Present? Yes V No			e Sampled				
Wetland Hydrology Present? Yes V No		with	in a Wetlan	id? Yes V	,		
Remarks:							
In Wetland B near WRB6.							
VEGETATION – Use scientific names of plant	ts.						
	Absolute	Dominant		Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius 1. Thuja plicata	<u>% Cover</u> 30	Species?	Status FAC	Number of Dominant Spe			(4)
			TAC	That Are OBL, FACW, or	FAC: 2		(A)
2				Total Number of Domina Species Across All Strata	_		(B)
4.							(D)
0	30	= Total C	over	Percent of Dominant Spe That Are OBL, FACW, or		00	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. Rubus spectabilis	50	Y	FAC	Prevalence Index work			
			FACU	Total % Cover of:		fultiply by:	
Vaccinium parvifolium 3			17.00	OBL species			
4				FACW species			
5.				FAC species	x 3 =	0	_
Ann na dùna	55	= Total C	over	FACU species	x 4 =	0	_
Herb Stratum (Plot size: 1m radius	0				x 5 =	0	_
1. None	0			Column Totals: 0	(A)	0	(B)
2				Prevalence Index :	= B/A =		
4				Hydrophytic Vegetation			
5				Rapid Test for Hydro	phytic Vege	etation	
6.				Dominance Test is >	50%		
7				Prevalence Index is	≤3.0 ¹		
8				Morphological Adapt	ations ¹ (Pro	vide suppor	ting
9				data in Remarks Wetland Non-Vascul		arate sneet)	
10				Problematic Hydroph		tion¹ (Evnlai	in)
11				¹ Indicators of hydric soil		, ,	•
Woody Vine Stratum (Plot size: 1m radius	0	= Total C	over	be present, unless distur			Tract
1. None	0						
2.				Hydrophytic Vegetation			
	0	= Total C	over		✓ No]	
% Bare Ground in Herb Stratum 100							
Remarks:							

		to the de	oth needed to docu		r or contirm	tne absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	<u>ox Features</u> % Type ¹	Loc ²	Texture	Remarks_
0-16	10YR 2/1	100				Silt Loam	
							
			=Reduced Matrix, C		ted Sand Gr		cation: PL=Pore Lining, M=Matrix.
	,	cable to al	LRRs, unless othe	•			ors for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Sandy Redox (S			_	n Muck (A10) Parent Material (TF2)
Black Hi			= ::	(36) ⁄lineral (F1) (exce p	t MI RA 1)	_	Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed I		in Entry		er (Explain in Remarks)
_	Below Dark Surfac	e (A11)	Depleted Matrix				
Thick Da	ark Surface (A12)		Redox Dark Su	rface (F6)		³ Indicato	ors of hydrophytic vegetation and
_	lucky Mineral (S1)		Depleted Dark S	, ,			nd hydrology must be present,
	lleyed Matrix (S4)		Redox Depress	ions (F8)		unles	s disturbed or problematic.
	Layer (if present):						
Type:	ches):					1	
	Cites)					Hydric Soil	Present? Yes 🗸 No
Remarks:							
					d or satura	ated for prol	longed periods. Redoximorphic
features m	ay be masked c	lue to sa	turation and inun	dation.			
HYDROLO	GY						
Wetland Hy	drology Indicators	:					
Primary Indi	cators (minimum of	one require	ed; check all that appl	ly)		Secor	ndary Indicators (2 or more required)
	Water (A1)	•	_	ined Leaves (B9) (except MLR	A N	ater-Stained Leaves (B9) (MLRA 1, 2,
=	ter Table (A2)			A, and 4B)	•	_	4A, and 4B)
Saturation	on (A3)		Salt Crust	(B11)		☐ Dr	rainage Patterns (B10)
Water M	arks (B1)		Aquatic Inv	vertebrates (B13)		☐ Dr	ry-Season Water Table (C2)
Sedimer	nt Deposits (B2)		Hydrogen	Sulfide Odor (C1)		☐ Sa	aturation Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Oxidized F	Rhizospheres along	Living Root	ts (C3) 🔲 Ge	eomorphic Position (D2)
Algal Ma	it or Crust (B4)		Presence	of Reduced Iron (C	(4)	☐ Sh	nallow Aquitard (D3)
_	osits (B5)		Recent Iro	n Reduction in Tille	ed Soils (C6))	AC-Neutral Test (D5)
=	Soil Cracks (B6)			Stressed Plants (D	01) (LRR A)		aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial			olain in Remarks)		L Fr	ost-Heave Hummocks (D7)
	Vegetated Concav	e Surface (B8)				
Field Obser		_					
Surface Wat			o Depth (inches	,			
Water Table		=	o Depth (inches				
Saturation P		Yes ☑ N	o Depth (inches	s): Surface	Wetla	and Hydrology	y Present? Yes. ✓ No.
(includes cap Describe Re		n gauge, m	onitoring well, aerial	photos, previous in	nspections).	if available:	
		J : J ; · · ·		,, , ,	, / /		
Remarks:							
. tomanto.							

Project/Site: 21199 - Viking Ave NW		City/Cour	nty: Poulsbo		Sampling Date: 02/1	8/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S13	
Investigator(s): MK, AR, AH			_ Section, To	ownship, Range: S15, T26	iN, R1E	
				, convex, none): None		6): <u>5</u>
Subregion (LRR): LRR-A	Lat: _47°	44'20.52	2"N	Long: 122°39'53.22"W	Datum: _V	VGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3				NWI classificati	tion: None	
Are climatic / hydrologic conditions on the site typical for this		_	No (I			
Are Vegetation, Soil, or Hydrology signif		_		mal Circumstances" presen	nt? Yes 🗸 No	
Are Vegetation, Soil, or Hydrology natura				d, explain any answers in R		
SUMMARY OF FINDINGS – Attach site map						es, etc.
			<u> </u>			
Hydrophytic Vegetation Present? Yes No		Is	the Sampled	Area		
Hydric Soil Present? Wetland Hydrology Present? Yes No		wit	thin a Wetlar	nd? Yes No) _/	
Remarks:	l					
Out of Wetland B Near WRB6						
VEGETATION – Use scientific names of plan	ts.					
	Absolute		nt Indicator	Dominance Test works	heet:	
Tree Stratum (Plot size: 5m radius 1. Thuja plicata	<u>% Cover</u> 65	Species	Status FAC	Number of Dominant Spe	_	(4)
2. Pseudotsuga menziesii	15	N	FACU	That Are OBL, FACW, or	FAC: 2	_ (A)
3. Acer macrophyllum	10	N	FACU	Total Number of Domina		(B)
4.				Species Across All Strata		_ (D)
	90	= Total	Cover	Percent of Dominant Spe That Are OBL, FACW, or		(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius						_ (A/D)
1. Vaccinium ovatum	20	<u>Y</u>	FACU	Prevalence Index works		
2. Thuja plicata	5	Y	FAC	Total % Cover of:		
3				OBL species FACW species	x 1 = 0	_
4					$x = \frac{3}{2}$	
5	25	= Total	Cover	FACU species 55	x 4 = 220	
Herb Stratum (Plot size: 1m radius		- 10101			x 5 = 100	_
1. Polystichum munitum	25	Y		Column Totals: 145	(A) <u>530</u>	(B)
2					2.65	
3				Prevalence Index = Hydrophytic Vegetation	·	
4				Rapid Test for Hydro		
5				Dominance Test is >		
6 7				Prevalence Index is ≤		
8				Morphological Adapta	ations ¹ (Provide suppo	orting
9.					or on a separate shee	it)
10				Wetland Non-Vascula		
11			_	-	nytic Vegetation ¹ (Expl	,
Manda Vina Quartum (Distrator 1m rodius	25	= Total	Cover	¹ Indicators of hydric soil a be present, unless disturb		/ musi
Woody Vine Stratum (Plot size: 1m radius 1. None	0					
2			-	Hydrophytic		
	0	= Total	Cover	Vegetation Present? Yes	□ No 🗸	
% Bare Ground in Herb Stratum 75		· Otal				
Remarks:						
1						

Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	Color (moist) % Type¹ Loc²	Sandy loam Dry Sandy loam Dry
Type: C=Concentra Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	I LRRs, unless otherwise noted.)	Sandy loam Dry nd Grains. 2Location: PL=Pore Lining, M=Matrix.
Type: C=Concentra Hydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	I LRRs, unless otherwise noted.)	nd Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Hydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Histosol (A1) Histic Epipedon (Black Histic (A3)			
Histic Epipedon (Black Histic (A3)	• • `	Sandy Redox (S5)	2 cm Muck (A10)
Black Histic (A3)	A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
		Loamy Mucky Mineral (F1) (except MLRA	A 1)
Hydrogen Sulfide	• •	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
= '	Dark Surface (A11)	Depleted Matrix (F3)	3 Indicators of hydrophytic vacatation and
Thick Dark Surfa Sandy Mucky Mi	, ,	Redox Dark Surface (F6) Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mideky Mil		Redox Depressions (F8)	unless disturbed or problematic.
estrictive Layer (if			
Type:			
Depth (inches):			Hydric Soil Present? Yes No ✔
emarks:			
·			
/DROLOGY	In Protein		
/etland Hydrology		ed; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A		Water-Stained Leaves (B9) (except	
High Water Table		1, 2, 4A, and 4B)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturation (A3)	(NZ)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Depos		Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9
Drift Deposits (B:	` '	Oxidized Rhizospheres along Living	
=		Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Algal Mat or Crus	•	Recent Iron Reduction in Tilled Soils	s (C6) FAC-Neutral Test (D5)
Iron Deposits (B	9)		,
_		Stunted or Stressed Plants (D1) (LR	RR A) Raised Ant Mounds (D6) (LRR A)
Iron Deposits (B5			RR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Deposits (B5 Surface Soil Crac Inundation Visible	cks (B6)	7) Other (Explain in Remarks)	
Iron Deposits (B5 Surface Soil Crad Inundation Visible Sparsely Vegeta	cks (B6) e on Aerial Imagery (B ed Concave Surface (77) Other (Explain in Remarks) (B8)	
Iron Deposits (Be Surface Soil Crac Inundation Visible Sparsely Vegetatield Observations: urface Water Prese	cks (B6) e on Aerial Imagery (B ed Concave Surface (Other (Explain in Remarks) Our Depth (inches):	
Iron Deposits (Be Surface Soil Crace Inundation Visible Sparsely Vegetations: ield Observations:	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N ? Yes N	Other (Explain in Remarks) OU Depth (inches): Depth (inches):	
Iron Deposits (BE) Surface Soil Crace Inundation Visible Sparsely Vegetar Field Observations: Surface Water Present Vater Table Present Staturation Present?	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N	(B8) O Depth (inches): Depth (inches):	
Iron Deposits (Basel Surface Soil Crace Soil Crace Inundation Visible Sparsely Vegetations: Surface Water Presentaturation Present?	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (Be Surface Soil Crad Inundation Visible Sparsely Vegetatield Observations: urface Water Present/ater Table Present? aturation Present?	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	Other (Explain in Remarks) OU Depth (inches): Depth (inches):	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (BS Surface Soil Crace Inundation Visible Sparsely Vegetations aurface Water Present Atturation Present Present Cludes capillary friescribe Recorded Inc.	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (Basel Surface Soil Crace Inundation Visible Sparsely Vegetations: urface Water Presentaturation Present? Includes capillary fries.	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No

Project/Site: 21199 - Viking Ave NW	(City/County	: Poulsbo		Sampling Date:	02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point:	S14
Investigator(s): MK, AR, AH			Section, To	wnship, Range: S15, T26	N, R1E	
Landform (hillslope, terrace, etc.): Hillslope		Local relie	ef (concave,	convex, none): None	Slo	pe (%): <u>15</u>
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52" N	N	Long: 122°39'53.22"W	Datur	n: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-1	15 percent :	slopes		NWI classificat	tion: None	
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	No (If			
Are Vegetation, Soil, or Hydrology signifi-				nal Circumstances" presen	nt? Yes ✓ No	
Are Vegetation , Soil , or Hydrology natural				, explain any answers in R	_	
SUMMARY OF FINDINGS – Attach site map s			,		•	atures, etc.
Hydrophytic Vegetation Present?						
Hydrophytic Vegetation Present? Yes ✓ No Hydric Soil Present? Yes ✓ No			e Sampled			
Wetland Hydrology Present?		with	in a Wetlan	nd? Yes ✓ No		
Remarks:		I				
In Wetland D near WRDD7						
VEGETATION – Use scientific names of plant	s.					
Tree Stratum (Plot size: 5m radius	Absolute % Cover			Dominance Test works		
1. None	0	Species:	Status	Number of Dominant Spe That Are OBL, FACW, or		(A)
2.						(7.7
3				Total Number of Domina Species Across All Strata	_	(B)
4				Percent of Dominant Spe		
Casting/Charle Construer (Distriction 3m radius	0	= Total Co	over	That Are OBL, FACW, or		(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. Fallopia japonica	30	Υ	FACU	Prevalence Index work	sheet:	
2. Rubus armeniacus	10	Y	FAC	Total % Cover of:		/ bv:
3				OBL species		
4				FACW species		
5				FAC species	x 3 = <u>0</u>	
Liet Charter (Diet einer im radius	40	= Total Co	over	FACU species		
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	95	Υ	FACW		x 5 = 0	
2. Athyrium filix-femina	5	N	FAC	Column Totals: 0	(A) <u>0</u>	(B)
3				Prevalence Index :	= B/A =	
4.				Hydrophytic Vegetation	n Indicators:	
5				Rapid Test for Hydro		ı
6				Dominance Test is >		
7				Prevalence Index is :		
8				Morphological Adapta data in Remarks		
9				Wetland Non-Vascul	•	,
10				Problematic Hydroph	nytic Vegetation ¹	(Explain)
11	100	= Total Co	OVET.	¹ Indicators of hydric soil		
Woody Vine Stratum (Plot size: 1m radius		= 10tar 0	OVCI	be present, unless distur	bed or problemat	iiC.
1. None	0			Hydrophytic		
2				Vegetation		
% Bare Ground in Herb Stratum 0	0	= Total Co	over	Present? Yes	✓ No	
Remarks:				<u> </u>		

Depth	Matrix			ox Featur	<u>es</u>	0		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks Remarks
0-5	10YR 3/2	100					Sandy Loar	<u> </u>
5-16	10YR 3/1	95	2.5Y 4/4	5	<u>C</u>	M	Sandy Loar	<u> </u>
•			M=Reduced Matrix, C			ed Sand G		Location: PL=Pore Lining, M=Matrix.
_		icable to a	II LRRs, unless other		ited.)			ators for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)		Sandy Redox				_	cm Muck (A10) ed Parent Material (TF2)
Black His			Loamy Mucky	. ,	1) (excen	t MI RA 1)	_	ery Shallow Dark Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed			t incita i,	_	ther (Explain in Remarks)
_ ` `	l Below Dark Surfac	ce (A11)	Depleted Matri		,			,
Thick Da	rk Surface (A12)		Redox Dark Su	ırface (F6)		³ Indic	ators of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F7)			tland hydrology must be present,
	leyed Matrix (S4)		Redox Depres	sions (F8)			un	less disturbed or problematic.
	Layer (if present):							
Type:								
Depth (in	ches):						Hydric S	oil Present? Yes 🗸 No
/DROLO	GY							
Vetland Hy	drology Indicators							
Vetland Hy	drology Indicators		ed; check all that app	oly)			Sec	condary Indicators (2 or more required)
Vetland Hydrimary Indic	drology Indicators cators (minimum of Water (A1)		_		ves (B9) (e	except MLI		Water-Stained Leaves (B9) (MLRA 1, 2,
/etland Hydrimary India Surface \ High Wa	drology Indicators cators (minimum of Water (A1) ter Table (A2)		Water-Sta	ained Leav		except MLI		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
/etland Hydrimary Indice Surface \ High Wa	drology Indicators cators (minimum of Water (A1) ter Table (A2)		☐ Water-Sta	ained Leav		except MLI		Water-Stained Leaves (B9) (MLRA 1, 2,
rimary Indication Surface High Wa Saturation Water Mi	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta	ained Leav I A, and 4I t (B11)	3)	except MLI		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
rimary Indications of the Indication of the Indi	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen	ained Leaver A. A. and 48 to (B11) invertebrate Sulfide C	es (B13) odor (C1)		RA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
/etland Hydrimary Indice Surface Management High Wa Saturation Water Management Sediment Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized	ained Leaver A.	es (B13) dor (C1) eres along	Living Roc	RA	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)
Vetland Hydrimary Indicential Surface of High Wards of Saturation water Market Sedimen Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Leav IA, and II t (B11) overtebrate Sulfide C Rhizosphe of Reduce	es (B13) odor (C1) eres along ed Iron (C	Living Roc 4)	RA	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)
Vetland Hydrimary Indice Surface Management High War Saturation Water Management Sedimen Drift Dep Algal Management	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ire	ained Leav IA, and II t (B11) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) odor (C1) eres along ed Iron (Co	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indicential Surface of Saturation Water Mark Sedimen Drift Dep Algal Mark Iron Dep Surface of Surface o	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)	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Leav A, and 4E t (B11) nvertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4)	RA	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)
Vetland Hydrimary India Surface V High Wa Saturation Water Ma Sediment Drift Dep Algal Ma Iron Dep Surface S Inundation	cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav IA, and II t (B11) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indicential Surface of High Warder Marting Sedimento Drift Departon Drift Departon Departon Departon Departon Departon Surface of Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4E t (B11) nvertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Verimary Indice Surface Verimary Mader	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 or Vegetated Concavivations:	Imagery (E	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4B t (B11) overtebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) dor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Verimary Indice Surface Verimary Mader	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 ovegetated Concav vations:	Imagery (Eve Surface	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) (B8) Depth (inches	ained Leav A, and 4B t (B11) overtebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) dor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Value Saturation Water Management Sediment Iron Dep Surface Saturation Surface Saturation Surface Saturation Surface Saturation	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 at Vegetated Concave vations: er Present?	Imagery (Eve Surface	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4E (B11) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roc 4) d Soils (C6	RA	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)
Surface Water Table Saturation Primary Indic Surface Water March Sedimen Drift Dep Algal Ma Iron Dep Surface Surface Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial or Vegetated Concav vations: er Present? Present?	Imagery (Eve Surface Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) (B8) Depth (inches	ained Leav A, and 4E (B11) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 11) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indice of Surface of Surf	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indice Primary Indice Surface V Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundation Sparsely Field Obser Surface Water Table Saturation P Includes cap Describe Rec	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Vetland Hydrimary Indice Surface Value Saturation Water Management Sediment Drift Dep Algal Management Iron Dep Surface Saturation Sparsely Field Obsert Surface Water Table Staturation Pencludes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Vetland Hydrimary Indice Indice In Indice Indice In Indice In Indice In Indice In Indice In Indice I	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S15
				ownship, Range: S15, T26	
					Slope (%): 15
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52'	'N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes		NWI classificat	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Yes			·
Are Vegetation, Soil, or Hydrology signif	•			mal Circumstances" presen	nt? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in R	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V		ls t	he Sampled		
Wetland Hydrology Present?		with	hin a Wetlar	nd? Yes No	
Remarks:					
Out of Wetland D near WRDD1					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator	Dominance Test works	
Thuja plicata	60	Y	FAC	Number of Dominant Spe That Are OBL, FACW, or	
2. Pseudotsuga menziesii	10	N	FACU		
3. Alnus rubra	10	N	FAC	Total Number of Domina Species Across All Strata	
4.					
One we dive	80	= Total 0	Cover	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius 1 llex aquifoluim	5	Y	FACU	Prevalence Index works	
		-			Sneet: Multiply by:
2					x 1 = 0
4					x 2 = 0
5				FAC species	
	5	= Total 0	Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	60	V	EACH	UPL species	x 5 = <u>0</u>
1. Polystichum munitum	60			Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index :	= B/A =
3 4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	phytic Vegetation
6.				Dominance Test is >	50%
7				Prevalence Index is	≤3.0 ¹
8					ations ¹ (Provide supporting
9				Wetland Non-Vascul	or on a separate sheet)
10					nytic Vegetation ¹ (Explain)
11		-		I 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	60	= Total (Cover	be present, unless distur	
1. None	0				
2.				Hydrophytic Vegetation	
	0	= Total (Cover	Present? Yes	☐ No 🗸
% Bare Ground in Herb Stratum 40					
Remarks:					

Depth	ription: (Describe Matrix	to the dep	th needed to docur	nent the in x Features	dicator	or confirm	the absence	of indicat	ors.)
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture		Remarks
0-5	7.5YR 3/2	100					Sandy Loam	Dry	
5-16	10YR 4/4	100					Sandy Loam	Dry	
0 10	10111111							<u>D</u> 1,y	
		=						-	
		-							
	-		-					-	
		-						-	
			=Reduced Matrix, CS			ed Sand Gr			=Pore Lining, M=Matrix.
		cable to all	LRRs, unless other		d.)				blematic Hydric Soils ³ :
Histosol	• •		Sandy Redox (S				_	Muck (A1	
Black Hi	ipedon (A2)		Stripped Matrix Loamy Mucky M		(avcant	MI DA 1	_		iterial (TF2) Park Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed N		(except	MERA I)			in Remarks)
	l Below Dark Surfac	e (A11)	Depleted Matrix					(,
Thick Da	rk Surface (A12)		Redox Dark Sur	face (F6)			³ Indicate	ors of hydro	phytic vegetation and
_	ucky Mineral (S1)		Depleted Dark S	, ,)			-	gy must be present,
	leyed Matrix (S4)		Redox Depressi	ons (F8)			unles	s disturbe	d or problematic.
	Layer (if present):								
Type:	 ches):								🗆 🗖
	U1165)						Hydric Soil	Present?	Yes No ✔
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			Seco	ndary Indic	ators (2 or more required)
Surface	Water (A1)		Water-Stair	ned Leaves	(B9) (e	xcept MLR	A	ater-Staine	ed Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		1, 2, 4	, and 4B)				4A, and	4B)
Saturation	on (A3)		Salt Crust ((B11)			□ D	rainage Pa	tterns (B10)
Water M	arks (B1)		Aquatic Inv	ertebrates	(B13)		_	-	Water Table (C2)
Sedimer	t Deposits (B2)		Hydrogen S	Sulfide Odo	r (C1)		∐ s	aturation V	isible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidized R	hizosphere	s along	Living Root	s (C3) 📙 G	eomorphic	Position (D2)
	t or Crust (B4)		Presence o		`	,		hallow Aqu	
	osits (B5)		Recent Iror			, ,		AC-Neutral	
_	Soil Cracks (B6)	, ,==	Stunted or		•	1) (LRR A)			Mounds (D6) (LRR A)
_	on Visible on Aerial			lain in Rem	arks)		L Fi	rost-Heave	Hummocks (D7)
	Vegetated Concav	e Surrace (i	38)						
Field Obser		□ N	. C. Bradt Cratica	`					
Surface Wat		=	Depth (inches						
Water Table		=	Depth (inches						
Saturation P (includes ca		Yes No	Depth (inches):		Wetla	and Hydrolog	y Present	? Yes∐ No ✓
		n gauge, m	onitoring well, aerial	ohotos, prev	vious ins	spections), i	if available:		
	`	- -		• •					
Remarks:									

Project/Site: 21199 - Viking Ave NW	(City/Count	y: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S16
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local relie	ef (concave	, convex, none): None	Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: 47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classifica	tion: None
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 signif	icantly distur	rbed?	Are "Nori	mal Circumstances" preser	nt? Yes ✔ No
Are Vegetation, Soil, or Hydrology natura	ılly problema	atic?	(If needed	d, explain any answers in R	demarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes V No					
Hydric Soil Present? Yes V No			e Sampled		. 🗆
Wetland Hydrology Present? Yes V No		With	in a Wetlar	na? Yes_♥_ No) <u> </u>
Remarks:					
In Wetland E near WRE4					
VEGETATION – Use scientific names of plan	te				
VEGETATION – Ose scientific fiames of plan	Absolute	Dominant	Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 5m radius	% Cover			Number of Dominant Sp	
1. None	0			That Are OBL, FACW, o	
2				Total Number of Domina	ant
3				Species Across All Strat	a: <u>3</u> (B)
4				Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Total C	over	That Are OBL, FACW, o	r FAC: 100 (A/B)
1. Rosa Sp.	65	Υ	FAC*	Prevalence Index work	sheet:
2. Rubus armeniacus	35	Y	FAC	Total % Cover of:	Multiply by:
3.				OBL species	x 1 = <u>0</u>
4				FACW species	x 2 = <u>0</u>
5				FAC species	x 3 = <u>0</u>
Light Outstand (Distriction 1m radius	100	= Total C	over		x 4 = 0
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	100	Υ	FACW		x 5 = 0
	-		-	Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	phytic Vegetation
6.				Dominance Test is >	50%
7				Prevalence Index is	≤3.0 ¹
8					tations ¹ (Provide supporting
9				Wetland Non-Vascul	or on a separate sheet)
10					nytic Vegetation ¹ (Explain)
11				 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	100	= Total C	over	be present, unless distu	
1. None	0				
2				Hydrophytic	
	0	= Total C	over	Vegetation Present? Yes	✓ No
% Bare Ground in Herb Stratum 0			- *		_
Remarks:					
Rose Species is conservatively rated as "Facul	tative".				

(inches) 0-4 4-11	Matrix			dox Features			
	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> <u>Typ</u>	e ¹ Loc ²	<u>Texture</u>	<u>Remarks</u>
4-11	10YR 3/1.5	100				Sandy Loam	
	10YR 4/1	95	10YR 3/6	5		Sandy Loam	-
11-16	10YR 4/1	88	10YR 3/6	12		Sandy Loam	
Hydric Soil I Histosol (Histic Epi Black His Hydroger Depleted Thick Dan Sandy Mi Sandy Gl	Indicators: (Appli (A1) ipedon (A2)	cable to al	M=Reduced Matrix, C I LRRs, unless oth Sandy Redox Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Stripped Matrix Redox Dark Stripped Matrix	erwise noted.) (S5) x (S6) Mineral (F1) (exc) I Matrix (F2) ix (F3) urface (F6) Surface (F7)		Indicators 2 cm I Red P Very S Other 3Indicators wetlan	ntion: PL=Pore Lining, M=Matrix. Is for Problematic Hydric Soils ³ : Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) Is of hydrophytic vegetation and dhydrology must be present, disturbed or problematic.
Remarks:	ches):					Hydric Soil F	Present? Yes 🗸 No
IYDROLO	GY drology Indicators	 s:					
-			ed; check all that app	plv)		Second	dary Indicators (2 or more required)
Surface V	Water (A1) ter Table (A2) on (A3)	•	Water-Sta 1, 2, 4 Salt Crus	ained Leaves (B9 4 A, and 4B) it (B11) nvertebrates (B13		Dra	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10) -Season Water Table (C2)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav		Oxidized Presence Recent Irr Stunted of	n Sulfide Odor (C Rhizospheres ald e of Reduced Iron on Reduction in T or Stressed Plants xplain in Remarks	ong Living Roo (C4) Filled Soils (C6 s (D1) (LRR A	Sat Sat Stat Shat Shat Shat FAC	uration Visible on Aerial Imagery (C9) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations:	ve Surface (Oxidized Presence Recent Ire Stunted of Other (Ex	Rhizospheres ald e of Reduced Iron on Reduction in T or Stressed Plants xplain in Remarks	ong Living Roo (C4) Filled Soils (C6 s (D1) (LRR A	Sat Sat Stat Shat Shat Shat FAC	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent Irr Stunted of Other (Ex	Rhizospheres ald e of Reduced Iron on Reduction in Tor Stressed Plants explain in Remarks es): 16 es): Surface	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG And Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent In Stunted of Other (Ex (B8) Depth (inche)	Rhizospheres ald e of Reduced Iron on Reduction in Tor Stressed Plants explain in Remarks es): 16 es): Surface	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG And Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent Irr Stunted of Other (Ex	Rhizospheres ald e of Reduced Iron on Reduction in Tor Stressed Plants explain in Remarks es): 16 es): Surface	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG And Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW	(City/C	County	_{/:} Poulsbo		Sampling	Date: 02/18	3/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling	Point: S17	
Investigator(s): MK, AR, AH				Section, To	ownship, Range: S15, T26	3N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Loca	al relie	ef (concave,	, convex, none): None		Slope (%)): <u>10</u>
Subregion (LRR): LRR-A	_ Lat: <u>47</u> °	44'20	0.52"	N	Long: <u>122°39'53.22"W</u>	!	Datum: W	GS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slope	es		NWI classifica	tion: Non	ie	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Y	es 🗸	No (li	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	rbed?	1	Are "Norr	mal Circumstances" prese	nt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natura	Ily problema	atic?		(If needed	d, explain any answers in F	≀emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	sam	plin	g point le	ocations, transects,	importa	ant feature	es, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No Yes				e Sampled				
Wetland Hydrology Present? Yes No			with	in a Wetlar	nd? Yes N	٥٧		
Remarks:		!						
Out of Wetland E near WRE2								
VEGETATION – Use scientific names of plan	ts.							
- Company Empredius				Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0				Number of Dominant Sp		2	(4)
					That Are OBL, FACW, o	rfac: _2		(A)
2. 3.					Total Number of Domina Species Across All Strat		2	(B)
4							=	(D)
Sapling/Shrub Stratum (Plot size: 3m radius	0		otal C		Percent of Dominant Sp That Are OBL, FACW, o		100	(A/B)
Rubus armeniacus	60	Υ	,	FAC	Prevalence Index work	sheet:		
2					Total % Cover of:		Multiply by:	
3.					OBL species	x 1 :	= 0	
4					FACW species	x 2 :	= 0	_
5					FAC species	x 3 :	= 0	
1m radius	60	= To	otal C	over	FACU species			_
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	75	V	,	FACW	UPL species			_
				TACW	Column Totals: 0	(A)	0	(B)
2					Prevalence Index	= B/A =		
4					Hydrophytic Vegetatio			
5					Rapid Test for Hydro	phytic Veç	getation	
6					Dominance Test is >	·50%		
7					Prevalence Index is	≤3.0 ¹		
8					Morphological Adap			
9					data in Remarks Wetland Non-Vascu		parate sneet,)
10					Problematic Hydropl		tation ¹ (Expla	in)
11					¹ Indicators of hydric soil	, ,	` '	,
Woody Vine Stratum (Plot size: 1m radius	<u>75 </u>	= To	otal C	over	be present, unless distu			
1. None	0							
2.					Hydrophytic Vegetation			
	0	= To	otal C	over		No [
% Bare Ground in Herb Stratum 25								
Remarks:								

Depth	ription: (Describe Matrix	to the dep	th needed to docur	nent tne ind x Features	dicator	or confirm	tne absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture	Remarks_
0-16	10YR 2/2	100					Sandy Loam	Dry, No redox
			-					
		=						
¹ Type: C=C	oncentration, D=De	pletion, RM:	=Reduced Matrix, CS	S=Covered of	or Coate	ed Sand Gr	ains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless other					ors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S		•		_	n Muck (A10)
	ipedon (A2)		Stripped Matrix				_	Parent Material (TF2)
Black Hi	stic (A3)		Loamy Mucky M	lineral (F1) ((except	MLRA 1)	☐ Very	Shallow Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy Gleyed N	/latrix (F2)			Othe	er (Explain in Remarks)
_ ·	Below Dark Surfac	e (A11)	Depleted Matrix	. ,				
_	rk Surface (A12)		Redox Dark Sur					ors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark S	, ,				and hydrology must be present,
_	leyed Matrix (S4)		Redox Depressi	ons (F8)			unles	s disturbed or problematic.
Type:	Layer (if present):							
,,	ches):						1	
Deptii (iii	GHes)						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
-			d; check all that appl	v)			Seco	ndary Indicators (2 or more required)
	Water (A1)	ono roquiro	_	ned Leaves	(B0) (a	vcent MI R		/ater-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			A, and 4B)	(D3) (C	Accet MEN	.~	4A, and 4B)
Saturation			Salt Crust	•			Пр	rainage Patterns (B10)
=	arks (B1)			rertebrates ('R13)		=	ry-Season Water Table (C2)
=	at Deposits (B2)			Sulfide Odor	. ,			aturation Visible on Aerial Imagery (C9)
=	oosits (B3)			hizospheres	` '	Living Root		eomorphic Position (D2)
=	t or Crust (B4)			of Reduced	_	_		hallow Aquitard (D3)
	osits (B5)		_	n Reduction	,	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		_	Stressed Pl		` ,		aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (R7	_	lain in Rema	•	., (=KK A)		rost-Heave Hummocks (D7)
_	Vegetated Concave		· —		arro,			ost Houve Hammooke (21)
Field Obser								
Surface Wat		Yes∏ No	Depth (inches	۸٠				
		=	=					
Water Table		=	Depth (inches					
Saturation P (includes ca		Yes No	Depth (inches	s):		Wetla	and Hydrolog	y Present? Yes No 🗸
		n gauge, mo	onitoring well, aerial	ohotos, prev	ious ins	spections),	if available:	
	,							
Remarks:								
. tomanto.								

Project/Site: 21199 - Viking Ave NW		City/Count	y: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S18
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
					Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent	slopes		NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Nor	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	Illy problema	atic?	(If needed	d, explain any answers in R	temarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplir	ng point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No					
Hydric Soil Present? Yes V No			ne Sampled		
Wetland Hydrology Present? Yes V No		With	nin a Wetlar	nd? Yes ✓ No)
Remarks:					
In Wetland F near WRF11					
VEGETATION – Use scientific names of plant	ts.				
	Absolute		t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius	% Cover	Species?		Number of Dominant Sp	ecies
1. Alnus rubra	20		FAC	That Are OBL, FACW, o	r FAC: 2 (A)
2				Total Number of Domina Species Across All Strati	
4.		-			
Sapling/Shrub Stratum (Plot size: 3m radius	20	= Total C	Cover	Percent of Dominant Spo That Are OBL, FACW, o	
1. None	0			Prevalence Index work	sheet:
2.				Total % Cover of:	Multiply by:
3				OBL species	
4				FACW species	
5				•	x 3 = 0
Herb Stratum (Plot size: 1m radius	0	= Total C	Cover		x 4 = 0
Phalaris arundinacea	100	Υ	FACW		x = 0 (B)
2.				Column Totals	(A) <u> </u>
3					= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	
6				Dominance Test is >	
7				Prevalence Index is	
8					rations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	ar Plants ¹
10				Problematic Hydroph	nytic Vegetation ¹ (Explain)
11	100	= Total C	Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius		- rotar c	00101	be present, unless distur	bed or problematic.
1. None	0			Hydrophytic	
2			·	Vegetation	
% Bare Ground in Herb Stratum 0	0	= Total C	Cover	Present? Yes	✓ No
Remarks:					

Depth	Matrix			dox Featur	<u>es</u>	. 0		
(inches) 0-2	Color (moist) 10YR 2/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Sandy Loam	Remarks
2-16	10YR 2/2	85	10YR 5/1	10	D	M	Sandy Loam	
2-10	10111 2/2		10 TR 5/1	5		M	Canay Loan	
								_
							. 2.	
•			M=Reduced Matrix, 0 II LRRs, unless oth			ed Sand G		ocation: PL=Pore Lining, M=Matrix. tors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox		ŕ		_	cm Muck (A10)
Histic E	pipedon (A2)		Stripped Matri				Re	d Parent Material (TF2)
Black Hi	istic (A3)		Loamy Mucky	Mineral (F	1) (excep	t MLRA 1)	☐ Ve	ry Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)		Loamy Gleyed	Matrix (F	2)		Otl	her (Explain in Remarks)
= '	d Below Dark Surfac	ce (A11)	Depleted Matr	. ,				
=	ark Surface (A12)		Redox Dark S	•	,			tors of hydrophytic vegetation and
= '	Mucky Mineral (S1)		Depleted Dark	•	•			land hydrology must be present,
	Bleyed Matrix (S4)		Redox Depres	sions (F8)			unle	ess disturbed or problematic.
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Sc	oil Present? Yes ✔ No
DROLC	OGY							
-	drology Indicators							
_		one require	ed; check all that ap					ondary Indicators (2 or more required)
=	Water (A1)				. , .	xcept MLF	RA 📙	Water-Stained Leaves (B9) (MLRA 1, 2
= -	ater Table (A2)			4A, and 4I	3)		_	4A, and 4B)
Saturati	on (A3)		Salt Crus	t (B11)			닏	Drainage Patterns (B10)
=	1arks (B1)		Aquatic II	nvertebrate	es (B13)			Dry-Season Water Table (C2)
Sedime	nt Deposits (B2)		Hydroger	n Sulfide C	dor (C1)			Saturation Visible on Aerial Imagery (CS
Drift De	posits (B3)		Oxidized	Rhizosphe	eres along	Living Roo	ots (C3)	Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduc	ed Iron (C	4)		Shallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent Ir	on Reduct	ion in Tille	d Soils (C6	i)	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted of	or Stressed	d Plants (D	1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
Inundati	on Visible on Aerial	Imagery (E	37) 🔲 Other (Ex	kplain in R	emarks)			Frost-Heave Hummocks (D7)
Sparsely	y Vegetated Concav	e Surface	(B8)					
ield Obse	rvations:							
urface Wa	ter Present?	Yes N	lo 🗸 Depth (inche	es):				
/ater Table			lo 🗹 Depth (inch					
aturation F		=	lo Depth (inche			Wetl	and Hydrolo	gy Present? Yes 🗸 No
	pillary fringe)	163[•] 1	o Deptii (iiiciii	es). <u>-</u>		Well	iana myanolo	gy r resent: reset No
		m gauge, m	nonitoring well, aeria	ıl photos, p	revious in	spections),	if available:	
temarks:								

Project/Site: 21199 - Viking Ave NW	(City/Cou	unty:	Poulsbo		Sampling Date: 02/18/22		
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling	Point: S19	
Investigator(s): MK, AR, AH			S	ection, To	wnship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local r	relief	(concave,	convex, none): None		Slope (%)): <u>10</u>
Subregion (LRR): LRR-A	_ Lat: <u>47</u> °	44'20.5	52"N		Long: 122°39'53.22"W		Datum: W	GS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes			NWI classificat	ion: Non	ne ne	
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	~	No (If	no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	bed?		Are "Norn	nal Circumstances" preser	ıt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	((If needed	, explain any answers in R	.emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling	point lo	ocations, transects,	importa	ant feature	es, etc.
Uhadaankadia Vaasdadian Bassada								
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes				Sampled				
Wetland Hydrology Present? Yes No		W	vithin	a Wetlan	d? Yes No			
Remarks:		I						
Out of Wetland F								
VEGETATION – Use scientific names of plant	te							
VEGETATION - Use scientific fiames of plant	Absolute	Domin	ant li	ndicator	Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius	% Cover	Specie			Number of Dominant Spe			
1. Alnus rubra	10	Y	!	FAC	That Are OBL, FACW, or	r FAC: _	3	(A)
2			<u> </u>		Total Number of Domina		0	
3					Species Across All Strata	a: <u> </u>	3	(B)
7.	10	= Tota		/er	Percent of Dominant Spe That Are OBL, FACW, or		100	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius						_	100	(٨/٥)
1. Rubus armeniacus	10	Y		FAC	Prevalence Index works		Maritim Ira harr	
2					Total % Cover of: OBL species		Multiply by: – 0	
4					FACW species			_
5.					FAC species			
Ann na dùna		= Tota	al Cov	/er	FACU species	x 4	= 0	_
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	100	Υ		FACW	UPL species			_
2				17.000	Column Totals: 0	(A)	0	(B)
3					Prevalence Index	= B/A = _		
4.					Hydrophytic Vegetation	n Indicato	rs:	
5					Rapid Test for Hydro		getation	
6					Dominance Test is >			
7					Prevalence Index is: Morphological Adapt		rovido auppo	rtina
8					data in Remarks			
9 10					Wetland Non-Vascul			
11.					Problematic Hydroph	, ,	` .	,
Woody Vine Stratum (Plot size: 1m radius	100	= Tota	al Cov	/er	¹ Indicators of hydric soil be present, unless distur			must
1. None	0				Lhadromby#!-			
2					Hydrophytic Vegetation		_	
% Bare Ground in Herb Stratum 0	0	= Tota	al Cov	/er	Present? Yes	✓ No		
Remarks:								

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-15	10YR 2/2	100	-				Sandy Loam	Dry
15-18	10YR 3/6	100					Sandy Clay Loam	Dry
	-		-					
	-							
Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covered	or Coate	ed Sand Gr	ains. ² Lo	cation: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise note	d.)		Indicato	ors for Problematic Hydric Soils ³ :
Histosol	, ,		Sandy Redox (S				_	n Muck (A10)
	oipedon (A2)		Stripped Matrix	. ,	/	MI DA 4\		Parent Material (TF2)
Black Hi	stic (A3) n Sulfide (A4)		Loamy Mucky M Loamy Gleyed M		(except	MLRA 1)		y Shallow Dark Surface (TF12) er (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix					er (Explain in Remarks)
= ·	ark Surface (A12)	50 (7111)	Redox Dark Sur	, ,			³ Indicate	ors of hydrophytic vegetation and
Sandy N	lucky Mineral (S1)		Depleted Dark S	Surface (F7))			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressi	ons (F8)			unles	ss disturbed or problematic.
	Layer (if present):							
Type:	-1>							
Deptn (in	ches):						Hydric Soil	I Present? Yes No ✔
Remarks:								
VDDOLG	· CV							
YDROLC								
-	drology Indicators		d abaal all that and				0	
		one require	d; check all that appl		(50) (ndary Indicators (2 or more required)
	Water (A1)			ned Leaves	s (B9) (e :	xcept MLR	:A	Vater-Stained Leaves (B9) (MLRA 1, 2,
Saturation N	ater Table (A2)		1, 2, 4 <i>F</i>	A, and 4B)				4A, and 4B) Prainage Patterns (B10)
=	` ,			` '	(D40)			• , ,
	larks (B1) nt Deposits (B2)		Aquatic Inv	Sulfide Odo				ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9
_	oosits (B3)		= ' '	hizosphere	` '	Living Poot		Seomorphic Position (D2)
= '	at or Crust (B4)		_	of Reduced	-	•		hallow Aquitard (D3)
	oosits (B5)		=	n Reduced	`	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		_	Stressed P		` ,		taised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	_	lain in Rem	•	i) (L ixix A)		rost-Heave Hummocks (D7)
=	Vegetated Concav				iamoj			root ricavo riammooko (57)
ield Obser								
		Yes No	Depth (inches	:):				
Nater Table			Depth (inches					
Saturation F			Depth (inches			Watt	and Hydrolog	y Present? Yes No ✓
includes ca	pillary fringe)							
		m gauge, m	onitoring well, aerial p	photos, pre	vious ins	spections),	if available:	
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty: F	Poulsbo	Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC					State: WA Sampling Point: S20
Investigator(s): MK, AR, AH			Se	ection, To	ownship, Range: S15, T26N, R1E
					convex, none): None Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: _47°	°44'20.	52"N		Long: 122°39'53.22"W Datum: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes	5		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	s 🗸	No (If	f no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly distu	rbed?		Are "Norn	mal Circumstances" present? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	ally problema	atic?	(1	If needed	, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samp	oling	point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No					
Hydric Soil Present? Yes V No				Sampled	
Wetland Hydrology Present? Yes V No		'	within	a Wetlan	nd? Yes[V] NO[]
Remarks:		•			
In Wetland G near WRGG1					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute			dicator	Dominance Test worksheet:
1. None	% Cover 0	Speci	ies?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2					Total Number of Dominant
3					Species Across All Strata: 2 (B)
4	_				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Tot	al Cov	er	That Are OBL, FACW, or FAC: 50 (A/B)
1. Fallopia japonica	25	Υ	F	ACU	Prevalence Index worksheet:
2					Total % Cover of: Multiply by:
3.					OBL species x 1 = _0
4					FACW species 100 x 2 = 200
5					FAC species $x 3 = 0$
Herb Stratum (Plot size: 1m radius	25	= Tot	al Cov	er	FACU species <u>25</u> x 4 = <u>100</u>
1. Phalaris arundinacea	100	Υ	F	ACW	UPL species $x = 5 = 0$ Column Totals: 125 (A) 300 (B)
2.				•	Column Totals: <u>125</u> (A) <u>300</u> (B)
3.					Prevalence Index = $B/A = 2.4$
4					Hydrophytic Vegetation Indicators:
5					Rapid Test for Hydrophytic Vegetation
6					Dominance Test is >50%
7					Prevalence Index is ≤3.0¹
8					Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9					Wetland Non-Vascular Plants ¹
10 11.					Problematic Hydrophytic Vegetation ¹ (Explain)
	100	= Tot	al Cove	er	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 1m radius					25 p. 555 r., arrioso distarbod or problematic.
1. None	0	-			Hydrophytic
2	_				Vegetation Present? Yes V No
% Bare Ground in Herb Stratum 0	<u> </u>	= Tot	aı C0V	EI	165 F 140
Remarks:					
Polygonum species is conservatively rated as '	'Facultati\	ve Upl	land".		

Depth	Matrix		Red	ox Feature	20			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks Remarks
0-8	10YR 2/2	100					Silt Loam	
8-16	2.5YR 5/2	90	7.5YR 4/6	10	С	M	Silt Loam	
								·
			-	_				
1			A Deduced Market O				21	
			M=Reduced Matrix, C II LRRs, unless other			ed Sand G		cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils ³ :
Histosol		cable to al	Sandy Redox (ieu.)			n Muck (A10)
	oipedon (A2)		Stripped Matrix				_	Parent Material (TF2)
Black Hi			Loamy Mucky I	. ,	1) (except	MLRA 1)	_	Shallow Dark Surface (TF12)
_	en Sulfide (A4)		Loamy Gleyed			,	= '	er (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix	x (F3)				
	ark Surface (A12)		Redox Dark Su	` '				ors of hydrophytic vegetation and
= '	Mucky Mineral (S1)		Depleted Dark	,	- 7)			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	sions (F8)			unles	s disturbed or problematic.
Type:	Layer (if present):							
, , ,	nches):						111	P
. `							Hydric Soil	Present? Yes V No
Remarks:								
HYDROLO	OGY							
	OGY rdrology Indicators	::						
Wetland Hy	drology Indicators		ed; check all that app	oly)			Seco	ndary Indicators (2 or more required)
Wetland Hy	drology Indicators		_		es (B9) (e	xcept MLF		ndary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Indi Surface	rdrology Indicators		☐ Water-Sta			xcept MLF		
Wetland Hy Primary Indi Surface	rdrology Indicators cators (minimum of Water (A1) ater Table (A2)		☐ Water-Sta	nined Leav A, and 4E		xcept MLF	RA W	ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio	rdrology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-Sta	nined Leav A, and 4E (B11)	3)	xcept MLF	RA W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-Sta 1, 2, 4 Salt Crust	ined Leav A, and 4E (B11) vertebrate	es (B13)	xcept MLF	RA W	vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Wetland Hy Primary Indi ☐ Surface ☐ High Wa ✓ Saturatio ☐ Water M ☐ Sedimer	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	nined Leaven A, and 4E (B11) avertebrate Sulfide O	es (B13) dor (C1)	xcept MLF	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	nined Leav A, and 4E (B11) overtebrate Sulfide O Rhizosphe	es (B13) dor (C1) eres along	Living Roo	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicators recators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence	ained Leav A, and 4E (B11) Evertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roo	RA W	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	rdrology Indicators reators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	A, and 4E (B11) (Vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4 on in Tille	Living Roo 4)	RA W D D S ts (C3) G S)	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one require	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation	rdrology Indicators reators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present?	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) INVERTED TATE SUIFICE OF Reduce OF Reduc	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present?	one require Imagery (Bre Surface (Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as):	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present? Present?	Imagery (Be Surface (Yes Nes Nes Nes Nes Nes Nes Nes Nes Nes N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as):	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3) G S F F	Vater-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)
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Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/19/2	22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S21	
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	ôN, R1E	
Landform (hillslope, terrace, etc.): Hillslope		Local rel	ief (concave,	, convex, none): None	Slope (%):	15
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WG	3S84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classifica	tion: None	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	No (l	f no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Norr	mal Circumstances" preser	nt? Yes No	
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	(If needed	d, explain any answers in F	Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ng point l	ocations, transects,	important feature	s, etc.
Hydrophytic Vegetation Present? Yes ✔ No						
Hydric Soil Present? Yes No			he Sampled hin a Wetlar			
Wetland Hydrology Present? Yes No		WIL	iiii a vvetiai	iu! fes[•] N	<u> </u>	
Remarks:						
Out of Wetland G						
VEGETATION – Use scientific names of plant	ts.					
Francisco			t Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Species	? Status	Number of Dominant Sp That Are OBL, FACW, o		(A)
2				Total Number of Domina	ant	
3			<u> </u>	Species Across All Strat	ta: <u>2</u>	(B)
4	0	= Total	Cover	Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. Rubus armeniacus	70	Υ	FAC	Prevalence Index work	rsheet:	
2		-			Multiply by:	
3.					x 1 = 0	
4					x 2 = 0	_
5				FAC species		_
Herb Stratum (Plot size: 1m radius	70	= Total	Cover		x 4 = 0	
Phalaris arundinacea	100	Υ	FACW		x = 0	
2				Column Totals: 0	(A) <u>0</u>	_ (B)
3.				Prevalence Index	= B/A =	
4				Hydrophytic Vegetatio		
5				Rapid Test for Hydro		
6				Dominance Test is >		
7				Prevalence Index is		
8					tations ¹ (Provide support or on a separate sheet)	ing
9				Wetland Non-Vascu	lar Plants ¹	
10		-		Problematic Hydropl	hytic Vegetation¹ (Explair	n)
11 Woody Vine Stratum (Plot size: 1m radius	100	= Total	Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology nrbed or problematic.	nust
1. None	0					-
2.				Hydrophytic Vegetation		
_	0	= Total	Cover		No 🗌	
% Bare Ground in Herb Stratum 0 Remarks:						
romano.						

Depth	Matrix		Podo	x Features		the absence	·
(inches)	Color (moist)	%	Color (moist)		Loc ²	Texture	Remarks
0-15	10YR 3/1	100				Sandy Loam	Damp
15-19+	10YR 4/4	100			_	Sandy Loam	
Hydric Soil Histosol Histic Ep Black His Hydroge Depleted Thick Da Sandy M Sandy G Restrictive Type:	Indicators: (Applie (A1) pipedon (A2)	cable to all	Reduced Matrix, CS LRRs, unless other Sandy Redox (S Stripped Matrix Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	wise noted.) (S6) (ineral (F1) (exc datrix (F2) (F3) face (F6) surface (F7)		Indicato 2 cm Red Very Othe	Dry cation: PL=Pore Lining, M=Matrix. crs for Problematic Hydric Soils³: Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) cr (Explain in Remarks) crs of hydrophytic vegetation and hydrology must be present, s disturbed or problematic. Present? Yes No
Depth (in	ches):					Hydric Soil	Present? Yes No ✓
Remarks:						•	
HYDROLO	GY						
-	drology Indicators						
Primary India	cators (minimum of	one required	d; check all that apply	/)		Secor	ndary Indicators (2 or more required)
_	Water (A1)			ned Leaves (B9)	(except MLR	A W	ater-Stained Leaves (B9) (MLRA 1, 2,
I = 1	ter Table (A2)			, and 4B)			4A, and 4B)
Saturation	` '		Salt Crust (rainage Patterns (B10)
_	arks (B1)			ertebrates (B13)		_	ry-Season Water Table (C2)
	nt Deposits (B2)			Sulfide Odor (C1	•		aturation Visible on Aerial Imagery (C9)
_	oosits (B3)		Oxidized R	hizospheres alo	na Livina Doot		D iti (D0)
Algal Ma	it or Crust (B4)						eomorphic Position (D2)
			_	f Reduced Iron	(C4)	SI	nallow Aquitard (D3)
	osits (B5)		Recent Iror	Reduction in T	(C4) illed Soils (C6)	SI D F/	nallow Aquitard (D3) AC-Neutral Test (D5)
Surface	osits (B5) Soil Cracks (B6)		Recent Iron Stunted or	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface	osits (B5) Soil Cracks (B6) on Visible on Aerial		Recent Iron Stunted or Other (Exp	Reduction in T	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundation Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav		Recent Iron Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface	osits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav		Recent Iron Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations:	e Surface (E	Recent Iror Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present?	e Surface (E	Recent Iror Stunted or Other (Exp 38) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser Surface Wate Water Table Saturation P	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present?	e Surface (E Yes No	Recent Iror Stunted or Other (Exp 38) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

APPENDIX B:

WETLAND RATING FORMS AND FIGURES

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A	Date of site visit: $\frac{02/18}{22}$						
Rated by MK & AH	Trained by Ecology? <u>✔</u> YesNo Date of training 3/15						
HGM Class used for rating DEPRESSION	NAL Wetland has multiple HGM classes? Y ✓ N						
NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map Kitsap County GIS							
OVERALL WETLAND CATEGORY _	[(based on functions or special characteristics)						

1. Category of wetland based on FUNCTIONS

Category I − Total score = 23 - 27

Category II − Total score = 20 - 22

Category III − Total score = 16 - 19

Category IV − Total score = 9 - 15

FUNCTION		nprov ter Qı	_	H	Hydrologic		drologic Habitat		Habitat	
					Circle	the ap	propri	ate ra	tings	
Site Potential	Н	M	L	Н	М	L	Н	M	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			3			7		17

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/

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	1
Hydroperiods	D 1.4, H 1.2	1
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	1
Map of the contributing basin	D 4.3, D 5.3	2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	4

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

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?

The wetland is on a slope (*slope can be very gradual*),

_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,

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.

Wetland	name	٥r	number	Α
wedanu	Hallic	OI.	Humber	_

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.

DEPRESSIONAL AND FLATS WETLANDS Water Quality Functions Indicators that the site functions to improve	water quality	
Water Quality Functions - Indicators that the site functions to improve D 1.0. Does the site have the potential to improve water quality?	water quality	
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving	it (no outlet).	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flo	points = 3	1
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	ng points = 1 n. points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions		0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area	cowardin classes): points = 5 points = 3 points = 1 points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	2
Total for D 1 Add the points in t	he boxes above	6
	rating on the first po	ige
D 2.0. Does the landscape have the potential to support the water quality function of the si	to?	
	Yes = 1 No = 0	0
	Yes = 1 No = 0	0
	Yes = 1 No = 0	_
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions		1
	Yes = 1 No = 0	0
Total for D 2 Add the points in t	he boxes above	1
Rating of Landscape Potential If score is:3 or 4 = Hv_1 or 2 = M0 = L Record	I the rating on the fi	rst page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water 303(d) list?	that is on the Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water question if there is a TMDL for the basin in which the unit is found)?	yes = 2 No = 0	2
Total for D 3 Add the points in t	he boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating of	n the first page	

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradati	on
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	0
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H 6-11 = M ✓ 0-5 = L Record the rating on the	first nage
	jirst page
D 5.0. Does the landscape have the potential to support hydrologic functions of the site? D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at	0
>1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5 Add the points in the boxes above	0
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on the	first page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):	0
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N_0 = 0}{N}$	0
Total for D 6 Add the points in the boxes above	0

Rating of Value If score is: ____2-4 = H _____1 = M _____0 = L

Record the rating on the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bedEmergentScrub-shrub (areas where shrubs have > 30% cover)York Scrub-shrub (areas where shrubs have > 30% cover)York Scrub-shrub (areas where trees have > 30% cover)York Structures: points = 1York Structures: points = 0	2
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 Seasonally flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland Freshwater tidal wetland 2 points 2 points	2
H 1.3. Richness of plant species 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 5 - 19 species points = 1 5 - 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	2

Wetland name or number **A**

	T	
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. <i>The number of check</i>		
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft lo	ong).	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plan	* *	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft		
Stable steep banks of fine material that might be used by beaver or muskrat		4
slope) OR signs of recent beaver activity are present (cut shrubs or trees the	at have not yet weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are pres		
permanently or seasonally inundated (structures for egg-laying by amphibi	-	
Invasive plants cover less than 25% of the wetland area in every stratum of I	plants (see H 1.1 for list of	
strata)		
	the points in the boxes above	11
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	Record the rating on the	e first page
H 2.0. Does the landscape have the potential to support the habitat functions o	f the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat 18 + [(% moderate and low intensity l	and uses)/2] <u>13</u> = <u>30</u> %	
If total accessible habitat is:		
\sim > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	·	
Calculate: % undisturbed habitat 26 + [(% moderate and low intensity l	and uses)/2] ¹⁸ = 44 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
Undisturbed habitat 10-50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points o	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	U
	the points in the boxes above	3
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L	Record the rating on the	
	necora the rating on the	- Just 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?	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 or animal	al on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species		2
It is a Wetland of High Conservation Value as determined by the Department		
It has been categorized as an important habitat site in a local or regional con	nprehensive plan, in a	
Shoreline Master Plan, or in a watershed plan	: 1	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: V 2 = H1 = M0 = L	Record the rating on the	e 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 (<i>full descriptions in WDFW PHS report</i>).	d
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).	
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 w prairie (full descriptions in WDFW PHS report p. 161 – see web link above).	et
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).	l
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, andesign and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.	te,
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 in (6 m) long.	
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addresse	d

elsewhere.

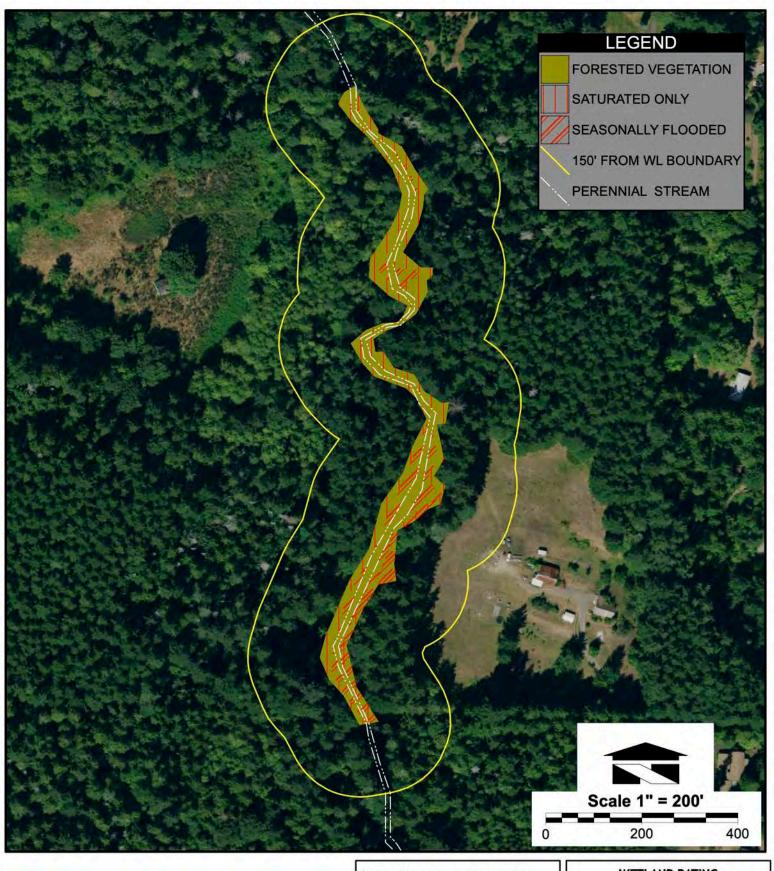
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Method Time	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	
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?	Cat. I
Yes = Category I No - Go to SC 1.2	
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	C-+ I
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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? 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? If you answer YES you will still need to rate the wetland based on its functions.		
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).		
<u> </u>	Cot I	
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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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	Cat. II	
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-	Cut. 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	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
	C-4 !!	
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	N/A	
If you answered No for all types, enter "Not Applicable" on Summary Form	1	

Wetland name or number	
	This page left blank intentionally

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND A



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

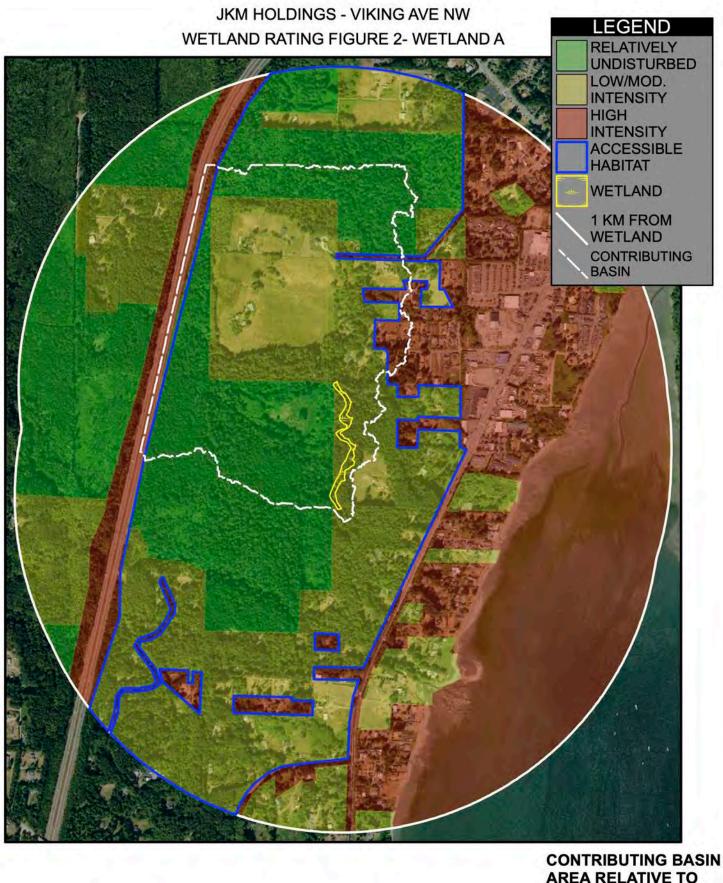
Fax: (425) 337-3045

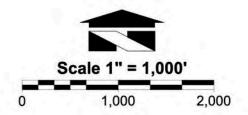
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

Figure A-1 WRI Job # 21199 Rated by: AH





Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

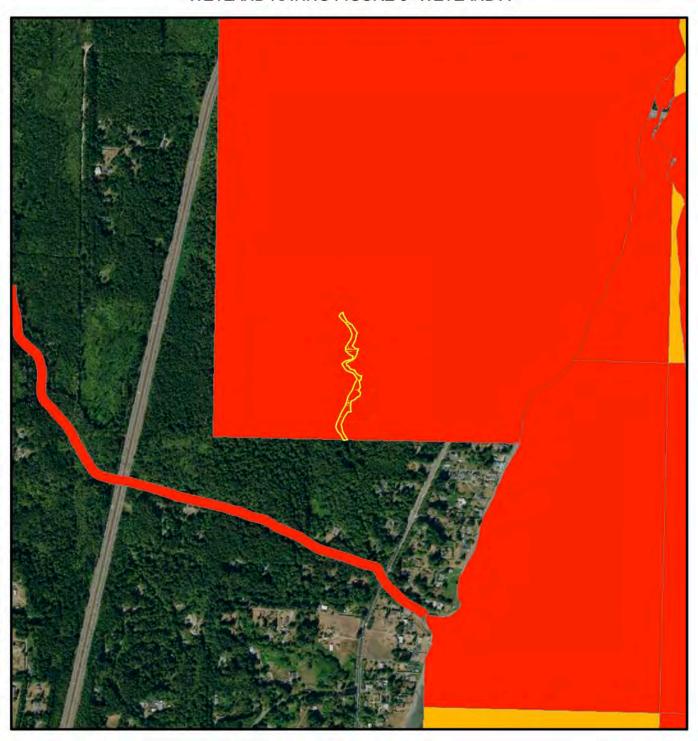
Email: mailbox@wetlandresources.com

AREA RELATIVE TO WETLAND UNIT IS 99:1

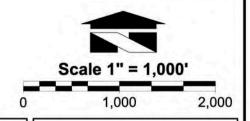
WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Figure A-2 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND A







Delineation / Militation / Pestoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure A-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B	Date of site visit: $\frac{02/18}{22}$
Rated by MK	Trained by Ecology? 🗹 Yes No Date of training 3/15
HGM Class used for rating DEPRESSIO	NAL Wetland has multiple HGM classes? Y ✓ N
NOTE: Form is not complete with Source of base aerial photo/ma	ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	Ⅲ (based on functions ✓ or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I − Total score = 23 - 27

Category II − Total score = 20 - 22

Category III − Total score = 16 - 19

Category IV − Total score = 9 - 15

FUNCTION		nprov ter Qı	_	H	ydrolo	ogic		Habita	it	
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	М	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	М	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			6		18

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		'

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	1
Hydroperiods	D 1.4, H 1.2	1
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	1
Map of the contributing basin	D 4.3, D 5.3	2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
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	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	4

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

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;

 $\underline{\mbox{At least }30\%}$ 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?

_The wetland is on a slope (slope can be very gradual),

_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,

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.

Wetland name or number Wetland B

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.

DEPRESSIONAL AND FLATS WETLANDS		
Water Quality Functions - Indicators that the site functions to improve	water quality	
D 1.0. Does the site have the potential to improve water quality?		I
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving	g it (no outlet). points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	owing outlet. points = 2	3
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditc	h. points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions		0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	cowardin classes): points = 5 points = 3 points = 1 points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation:	.	
This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	4
Total for D 1 Add the points in t	the boxes above	10
	rating on the first pa	
D 2.0. Does the landscape have the potential to support the water quality function of the s	ite?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions Source	D 2.1-D 2.3? Yes = 1 No = 0	0
Total for D 2 Add the points in t	the boxes above	2
Rating of Landscape Potential If score is:3 or 4 = H 1 or 2 = M0 = L Record	d the rating on the fir	rst page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water 303(d) list?	that is on the Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quif there is a TMDL for the basin in which the unit is found)?	uality (answer YES Yes = 2 No = 0	2
Total for D 3 Add the points in t	the boxes above	4
Rating of Value If score is: v2-4 = H1 = M0 = L Record the rating of Value If score is: v2-4 = H1 = M0 = L	on the first page	-

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	3
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. ☐ The area of the basin is less than 10 times the area of the unit ☐ The area of the basin is 10 to 100 times the area of the unit ☐ The area of the basin is more than 100 times the area of the unit ☐ Entire wetland is in the Flats class ☐ points = 5 ☐ Entire wetland is in the Flats class	3
Total for D 4 Add the points in the boxes above	10
Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L Record the rating on the	first page
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 3 = H v 1 or 2 = M 0 = L Record the rating on the	first page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): ■ Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 ■ Surface flooding problems are in a sub-basin farther down-gradient. points = 1 ■ Flooding from groundwater is an issue in the sub-basin. points = 1 ■ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 ■ There are no problems with flooding downstream of the wetland. points = 0	0
D 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	0
Total for D 6 Add the points in the boxes above	0

Rating of Value If score is: ____2-4 = H _____1 = M _____0 = L

Record the rating on the first page

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 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 bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 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	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 < 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number Wetland B

		1
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The second of the se	he number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in o	diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/o		
over a stream (or ditch) in, or contiguous with the wetla		
Stable steep banks of fine material that might be used by	= : = =	3
slope) OR signs of recent beaver activity are present (cut where wood is exposed)	t shrubs or trees that have not yet weathered	
At least ¼ ac of thin-stemmed persistent plants or woody	hranches are present in areas that are	
permanently or seasonally inundated (structures for egg	•	
strata)	, , , , , , , , , , , , , , , , , , , ,	
Total for H 1	Add the points in the boxes above	7
Rating of Site Potential If score is: 15-18 = H 7-14 = M	_O-6 = L Record the rating on t	he first page
H 2.0. Does the landscape have the potential to support the ha	abitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts we	tland unit).	
Calculate: % undisturbed habitat 21 + [(% moderate	and low intensity land uses)/2] $\frac{12}{2}$ = $\frac{33}{6}$ %	
If total accessible habitat is:		
\sum > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat 25 + [(% moderate		
Undisturbed habitat > 50% of Polygon	points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon	points = 1 points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points – o	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	U
Total for H 2	Add the points in the boxes above	3
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M		
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, regula that applies to the wetland being rated.	ations, or policies? Choose only the highest score	
Site meets ANY of the following criteria:	points = 2	
It has 3 or more priority habitats within 100 m (see next p	•	
It provides habitat for Threatened or Endangered species		
It is mapped as a location for an individual WDFW priority		1
It is a Wetland of High Conservation Value as determined	•	-
It has been categorized as an important habitat site in a lo		
Shoreline Master Plan, or in a watershed plan		
Site has 1 or 2 priority habitats (listed on next page) within 10	0 m points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: 2 = H 1 = M 0 = L	Record the rating on t	he first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

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/)

	ant how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is ependent 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 (<i>full descriptions in WDFW PHS report</i>).
	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
V	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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
	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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
	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.
V	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.

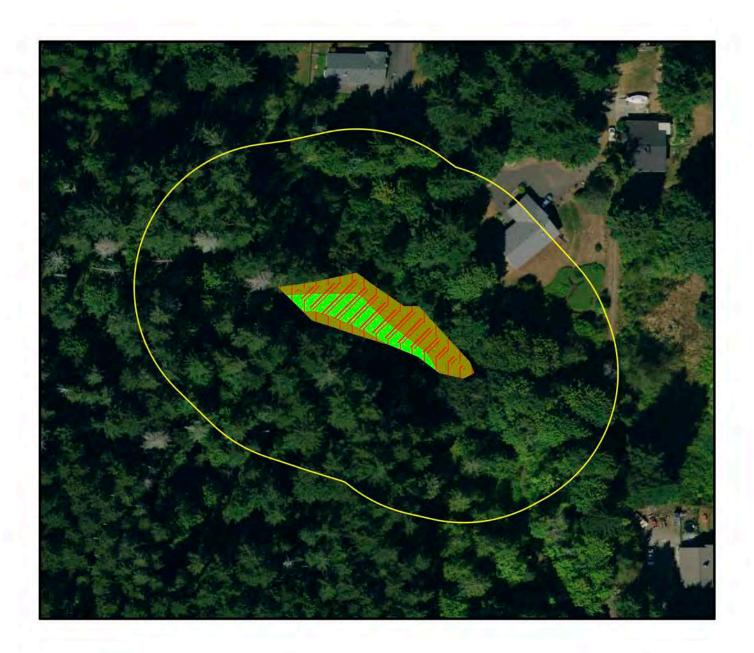
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

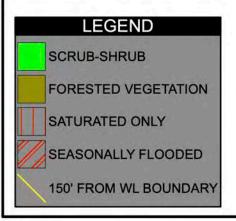
CATEGORIZATION DASED ON SPECIAL CHARACTERISTICS	C .
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
The dominant water 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 <i>Spartina</i> , 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. 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	Cat. 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	
100 10 11 11 11 11 11 11 11 11 11 11 11	

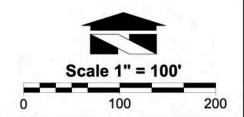
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.		
Old-growth forests (west 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).		
	Cat I	
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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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	Cat. II	
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed 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	Cat I	
Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109	Cati	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
100 00 to 00 012		
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	
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		
3 ,	Cat. IV	
Category of wetland based on Special Characteristics	N/A	
If you answered No for all types, enter "Not Applicable" on Summary Form	,,,	

Wetland name or number	
	This page left blank intentionally

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND B







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

Figure B-1 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND B



LEGEND

RELATIVELY UNDISTURBED LOW/MOD. INTENSITY HIGH INTENSITY **ACCESSIBLE HABITAT**

WETLAND

1 KM FROM WETLAND CONTRIBUTING **BASIN**



CONTRIBUTING BASIN AREA RELATIVE TO WETLAND UNIT IS 11:1

Netland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

1,000

2,000

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

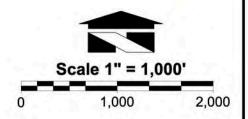
WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Figure B-2 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND B







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure B-3 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland C Date of site visit: 02/	
Rated by MK	Trained by Ecology? 🗹 Yes No Date of training 3/15
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	IV (based on functions ✓ or special characteristics)
1. Category of wetland based on F	UNCTIONS

 _Category I — Total score = 23 - 27
 _Category II – Total score = 20 - 22
 _Category III – Total score = 16 - 19
 _Category IV — Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
		Circle the appropriate ratings								
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	М	L	Н	M	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	M	L	TOTAL
Score Based on Ratings		6			4			5		15

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H 8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	✓	

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (slope can be very gradual),

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,

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.

TA7 .1 1			1	^
Wetland	name	or	number	C

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	3
Slope is > 1%-2% points = 2	J
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.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = 6 Dense, uncut, herbaceous plants > ½ of area points = 3	0
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	
Rating of Site Potential If score is: 12 = H 6-11 = M v 0-5 = L Record the rating on the solution of the solution is the boxes above	3
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? Yes = 1 No = 0	1
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	1
Rating of Landscape Potential If score is: v 1-2 = M0 = L Record the rating on to	he 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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating on the score is:	the first page

SLOPE WETLANDS			
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream 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 appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: 1 = M v 0 = L Record the rating on	0 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 surface runoff? Yes = 1 No = 0	1		
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream Points = 0	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	0		
Total for S 6 Add the points in the boxes above	0		
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page		

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 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 bedAquatic bedStructures or more: points = 4Emergent 3 structures: points = 2Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1	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	0	
H 1.3. Richness of plant species 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 5 - 19 species points = 1	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	0	

Wetland name or number **C**

	1
H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
_✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	2
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	2
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 amphibians)	
✓ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	
Total for H 1 Add the points in the boxes above	3
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 13 = 30 %	1
If total accessible habitat is:	
1	
$ > \frac{1}{3} (33.3\%) \text{ of 1 km Polygon} $ points = 3	2
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $21 + (\% \text{ moderate and low intensity land uses})/2 = 36 %$	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	1
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
	0
✓ ≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	3
Rating of Landscape Potential If score is:4-6 = H<1-3 = M<1 = L Record the rating on the	ie jirst 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? 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 or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species	1
It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	*
It has been categorized as an important habitat site in a local or regional comprehensive 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	
Site does not meet any of the criteria above points = 0	the first was
Rating of Value If score is: 2 = H 1 = M 0 = L Record the rating on	uie jirst page

TAT .1 1			1	_
Wetland	name	or	number	C

WDFW Priority Habitats

Priority habitats listed by WDFW (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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 web 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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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	Cat. I
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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	
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	

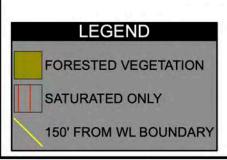
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>		
the wetland based on its functions. Old-growth forests (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).	1	
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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
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:	1	
Long Beach Peninsula: Lands west of SR 103		
Grayland-Westport: Lands west of SR 105	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	1	
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	1	
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?	1	
Yes = Category III No = Category IV	Cat. IV	
Category of wetland based on Special Characteristics		
If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

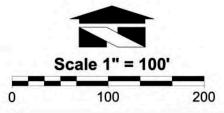
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND C







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure C-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

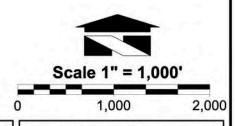
JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND C





CONTRIBUTING

BASIN



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

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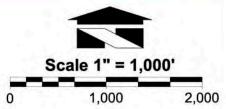
WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure C-2 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND C







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

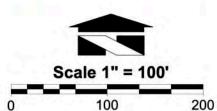
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure C-3 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND C







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

in Figure C-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland D	Date of site visit: $\frac{02/18}{22}$
Rated by MK	Trained by Ecology? 🗹 YesNo Date of training 3/15
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u> ✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	IV _ (based on functions ✓ or special characteristics)
1. Category of wetland based on F	:UNCTIONS

 _Category I – Total score = 23 - 27
 _Category II - Total score = 20 - 22
 _Category III – Total score = 16 - 19
 _Category IV — Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	M	L	TOTAL
Score Based on Ratings		6			3			6		15

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	✓		

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 uni	t is i	n a v	alley, o	r stream	channel,	where i	t gets	inundat	ted by	overba	nk flo	oding	from	tha
stream	or ri	iver,												
			_		-		_							

___The overbank flooding occurs at least once every 2 years.

Wetland n	ame or r	number	D
-----------	----------	--------	---

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 Slope is > 1%-2% Slope is > 2%-5% points = 1	0
Slope is greater than 5% points = 0 Slope is greater than 5% points = 0 Slope is greater than 5% points = 0 Slope is greater than 5%	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 S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:	U
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. 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 > ½ of area Dense, uncut, herbaceous plants > ½ of area points = 2 Dense, uncut, herbaceous plants > ½ of area points = 1 Does not meet any of the criteria above for plants	3
Total for S 1 Add the points in the boxes above	3
Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L Record the rating on the state of	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? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No = 0	0
Total for S 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is:0 = L	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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating on the score is: v 2-4 = H 1 = M	the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	ion
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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is:1 = Mv_0 = L Record the rating on	0 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 surface runoff? Yes = 1 No = 0	0
Rating of Landscape Potential If score is: 1 = M v 0 = L Record the rating on a	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N_0}{N_0}$	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % 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
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 Seasonally flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland Freshwater tidal wetland 2 points 2 points	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 5 - 19 species points = 1	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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **D**

Check the habitat features that are present in the wetland. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree 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 are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1	3
·	8
Rating of Site Potential If score is:15-18 = H	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 16 + [(% moderate and low intensity land uses)/2] 12 = 28 % 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 points = 1 > 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 14 = 31 % 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 points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0 H 2.3. Land use intensity in 1 km Polygon: If	1
> 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L Record the rating on the	ne 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 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 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 Natural Resources It has been categorized as an important habitat site in a local or regional comprehensive 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 points = 1 Site does not meet any of the criteria above points = 0 Rating of Value If score is: 2 = H 1 = M 0 = L	1 the first page

Wetland name or number D	
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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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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

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 <i>Spartina</i> , see page 25)	Cat. I
At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
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	
tes category:	
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	6-4-1
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	
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 <u>on top of a lake or</u> 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	

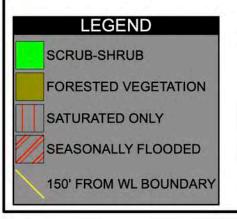
SC 4.0. Forested Wetlands			
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA	ı		
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>			
the wetland based on its functions. Old-growth 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).	1		
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)	Cat. I		
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon			
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).	Cat. II		
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-			
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:	1		
Long Beach Peninsula: Lands west of SR 103			
Grayland-Westport: Lands west of SR 105	Cat I		
Ocean Shores-Copalis: Lands west of SR 115 and SR 109			
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	1		
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	1		
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?	1		
Yes = Category III No = Category IV	Cat. IV		
Category of wetland based on Special Characteristics			
If you answered No for all types, enter "Not Applicable" on Summary Form	N/A		

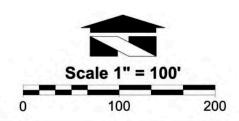
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND D







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure D-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND D



LEGEND

RELATIVELY UNDISTURBED LOW/MOD. INTENSITY HIGH

INTENSITY ACCESSIBLE **HABITAT**

WETLAND

1 KM FROM WETLAND CONTRIBUTING BASIN



1,000

2,000

Wetland Resources, Inc.

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WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188

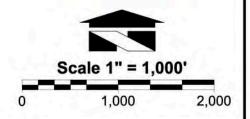
Puyallup, WA 98371

n Figure D-2 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND D







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure D-3 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND D







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Email: mailbox@wetlandresources.com

Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure D-4 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland E	Date of site visit: $\frac{02/18}{22}$				
Rated by MK& AH	Trained by Ecology? 🗹 Yes No Date of training 3/15				
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N				
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined).				
OVERALL WETLAND CATEGORY _	Ⅲ (based on functions ✓ or special characteristics)				

1. Category of wetland based on FUNCTIONS

 Category I — Total score = 23 - 27
 _Category II - Total score = 20 - 22
 _Category III - Total score = 16 - 19
 _Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic			Habit	at			
					Circle	the ap	propr	iate ro	itings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	M	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			5		17

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (slope can be very gradual),

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,

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.

Wetland name or number E

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 Slope is > 1%-2% Slope is > 1%-2% Slope is > 1%-2%	0
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. 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 Dense, uncut, herbaceous plants > ¼ of area Does not meet any of the criteria above for plants points = 0	6
Total for S 1 Add the points in the boxes above	6
Rating of Site Potential If score is: 12 = H <u>v</u> 6-11 = M0-5 = L Record the rating on the second secon	· ·
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? 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? Other sources Yes = 1 No = 0 Total for S 2 Add the points in the boxes above	1 0
Rating of Landscape Potential If score is: ✓ 1-2 = M0 = L Record the rating on the first pag	
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 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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 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 eros	ion
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 > \frac{1}{8} \) in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions Rating of Site Potential If score is: \(\nabla \) 1 = M \(\nabla \) 0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L Record the rating on the score is:v1 = M0 = L	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{1}{N_0}$	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bedAquatic bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 ——Y 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	0
take Fringe Wetland 2 points 2 points 2 points 2 points	
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 c 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **E**

	T	1	
H 1.5. Special habitat features:			
Check the habitat features that are present in the wetland. <i>The number of checks is the num</i>	iber of points.		
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).			
Standing snags (dbh > 4 in) within the wetland			
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends	at least 3.3 ft (1 m)		
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)			
Stable steep banks of fine material that might be used by beaver or muskrat for denning		0	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not y	yet weatnerea		
where wood is exposed)			
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	tnat are		
permanently or seasonally inundated (structures for egg-laying by amphibians)	II 1 1 for list of		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see F strata)	T 1.1 JUT IIST OJ		
·	n the boxes above	3	
	Record the rating on t	ie jirst page	
H 2.0. Does the landscape have the potential to support the habitat functions of the site?			
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).			
Calculate: % undisturbed habitat 19 + [(% moderate and low intensity land uses)/2] 11 = 30 %		
If total accessible habitat is:			
\sim > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2	
20-33% of 1 km Polygon	points = 2		
10-19% of 1 km Polygon	points = 1		
< 10% of 1 km Polygon	points = 0		
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.			
Calculate: % undisturbed habitat 20 + [(% moderate and low intensity land uses)/2] 13 = 33 %		
Undisturbed habitat > 50% of Polygon	points = 3		
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1	
Undisturbed habitat 10-50% and > 3 patches	points = 1		
Undisturbed habitat < 10% of 1 km Polygon	points = 0		
H 2.3. Land use intensity in 1 km Polygon: If	·		
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	-2	
≤ 50% of 1 km Polygon is high intensity	points = 0	-	
	the boxes above	1	
Rating of Landscape Potential If score is:4-6 = H<1-3 = M<1 = L R	ecord the rating on th	e 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 policies? <i>Choose only</i>	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 or animal on the sta	ate or federal lists)		
It is mapped as a location for an individual WDFW priority species	Danasana	1	
It is a Wetland of High Conservation Value as determined by the Department of Natural			
It has been categorized as an important habitat site in a local or regional comprehensive	e pian, in a		
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1		
Site does not meet any of the criteria above	points = 0	ha first naas	
Rating of Value If score is: 2 = H 1 1 = M 0 = L	Record the rating on t	ne jirst page	

Wetland name or number E	me or number E
---------------------------------	-----------------------

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: $\it NOTE: This question is independent of the land use between the wetland unit and the priority habitat.$
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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 we 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

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	Cat. I
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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	
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	

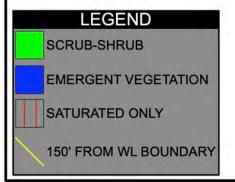
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.		
Old-growth forests (west 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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
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	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
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	
Catagony of watland hazad on Special Characteristics	Cut. IV	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

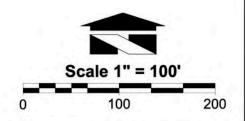
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND E







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

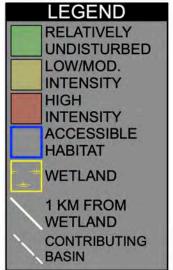
WETLAND RATING Wetland E

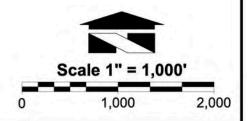
JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure E-1 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND E







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

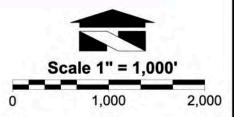
WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure E-2 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND E







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Email: mailbox@wetlandresources.com

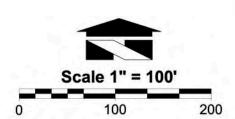
WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure E-3 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND E







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

n Figure E-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland F	Date of site visit: <u>02/18</u> /22	
Rated by MK	Trained by Ecology? 🗹 YesNo Date of training 3/15_	
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N	
NOTE: Form is not complete without Source of base aerial photo/ma	put the figures requested (figures can be combined). p Kitsap County GIS	
OVERALL WETLAND CATEGORY _	[[] (based on functions C or special characteristics)	

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27				
Category II - Total score = 20 - 22				
	_Category III - Total score = 16 - 19			
	_Category IV – Total score = 9 - 15			

FUNCTION	Improving Water Quality		H	ydrolo	ogic	Habitat				
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			5		17

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	V		

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	_
(can be added to figure above)		5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 get	s inundated by overbank flooding from that
stream or river,	

___The overbank flooding occurs at least once every 2 years.

Wetland name or number F	:
--------------------------	---

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 WETLAND Water Quality Functions - Indicators that the site f		
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 1 100 ft of horizontal distance)	1 ft vertical drop in elevation for every	
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	c (use NRCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pol	lutants:	
Choose the points appropriate for the description that best fits the plan		
have trouble seeing the soil surface (>75% cover), and uncut means not	t grazed or mowed and plants are higher	
than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	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	6
Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L	Record the rating on t	he first page
S 2.0. Does the landscape have the potential to support the water qua	lity function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in la	nd uses that generate pollutants? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are Other sources	not listed in question S 2.1? Yes = 1 No = 0	0
Total for S 2	Add the points in the boxes above	1
Rating of Landscape Potential If score is:1-2 = M0 = L	Record the rating on t	he first page
S 3.0. Is the water quality improvement provided by the site valuable t	to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river 303(d) list?	, lake, or marine water that is on the Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? A on the 303(d) list.	At least one aquatic resource in the basin is $Yes = 1$ No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for if there is a TMDL for the basin in which unit is found.	or maintaining water quality? <i>Answer YES</i> Yes = 2 No = 0	2
Total for S 3	Add the points in the boxes above	4
Rating of Value If score is: <u>v</u> 2-4 = H1 = M0 = L	Record the rating on t	he first page
		- , 5

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: 1 = M0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L Record the rating on a	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	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	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 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 bedAquatic bed4 structures or more: points = 4Emergent3 structures: points = 2Scrub-shrub (areas where shrubs have > 30% cover)2 structures: points = 1	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	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **F**

H 1.5. Special habitat features:								
Check the habitat features that are present in the wetland. The number of checks is the number of points.								
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).								
Standing snags (dbh > 4 in) within the wetland								
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)								
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)								
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	1							
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 are present in areas that are								
permanently or seasonally inundated (structures for egg-laying by amphibians)								
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of								
strata)								
Total for H 1 Add the points in the boxes above	4							
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	the first page							
H 2.0. Does the landscape have the potential to support the habitat functions of the site?								
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).								
Calculate: % undisturbed habitat $\underline{19} + [(\% \text{ moderate and low intensity land uses})/2] \underline{11} = \underline{29} \%$								
If total accessible habitat is:								
	2							
	2							
10-19% of 1 km Polygon points = 1								
< 10% of 1 km Polygon points = 0								
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.								
Calculate: % undisturbed habitat $\frac{19}{}$ + [(% moderate and low intensity land uses)/2] $\frac{13}{}$ = $\frac{32}{}$ %								
Undisturbed habitat > 50% of Polygon points = 3	1							
Undisturbed habitat 10-50% and in 1-3 patches points = 2	-							
Undisturbed habitat 10-50% and > 3 patches points = 1								
Undisturbed habitat < 10% of 1 km Polygon points = 0								
H 2.3. Land use intensity in 1 km Polygon: If								
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2							
≤ 50% of 1 km Polygon is high intensity points = 0								
Total for H 2 Add the points in the boxes above	1							
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M 1-3 = M Record the rating on the	ne 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 policies? <i>Choose only the highest score</i>								
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 or animal on the state or federal lists)								
It is mapped as a location for an individual WDFW priority species	4							
It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	1							
It has been categorized as an important habitat site in a local or regional comprehensive 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								
Site does not meet any of the criteria above points = 0								
Rating of Value If score is: 2 = H V 1 = M 0 = L Record the rating on the criteria above	the first page							

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

Wetland name or number F

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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
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

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 <i>Spartina</i> , see page 25)	Cat. I
At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
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	
tes category:	
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	6-4-1
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	
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 <u>on top of a lake or</u> 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	

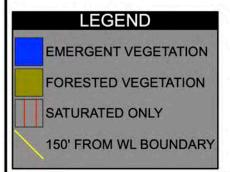
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>		
the wetland based on its functions. Old-growth forests (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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
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	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
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	
Catagony of watland based on Special Characteristics	Cat. IV	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

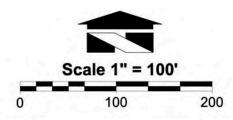
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND F







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

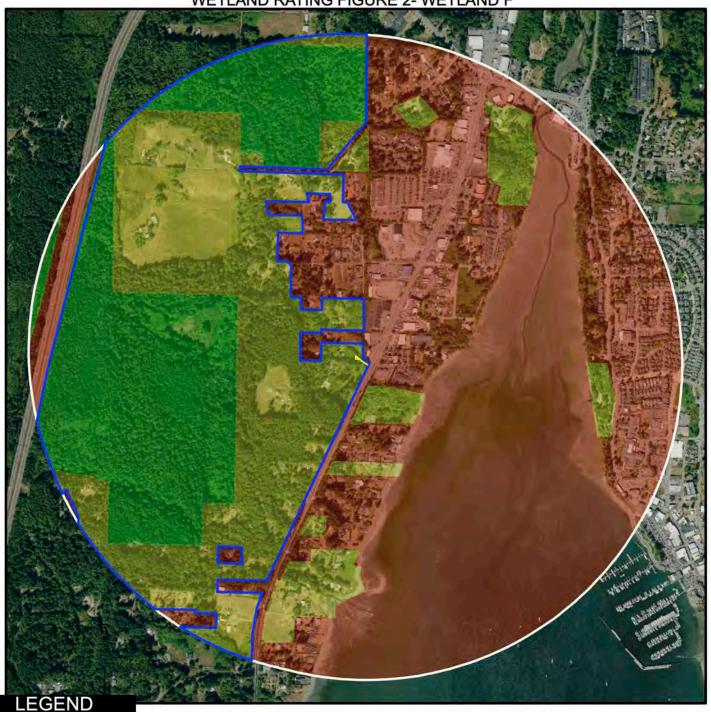
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

Figure F-1 WRI Job # 21199 Rated by: AH

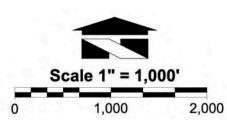
JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND F





HABITAT WETLAND

1 KM FROM WETLAND CONTRIBUTING **BASIN**



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

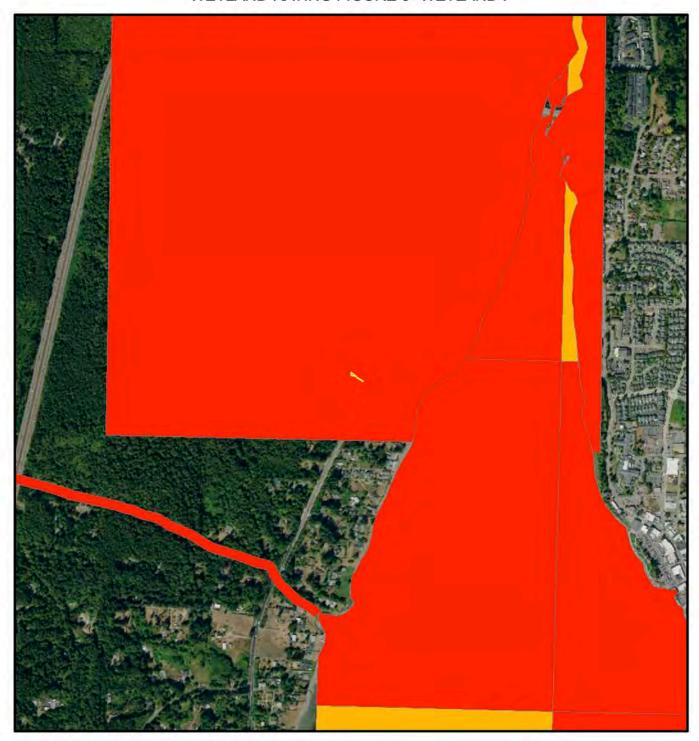
Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

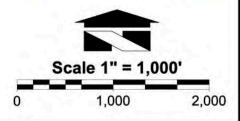
WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure F-2 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND F







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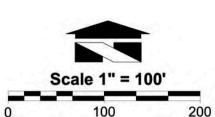
Email: mailbox@wetlandresources.com

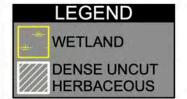
WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure F-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND F







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

n Figure F-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WETLAND G	Date of site visit: $\frac{02/18}{22}$					
Rated by MK & AH	Trained by Ecology? 🗹 Yes No Date of training 3					
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y ✓ N					
NOTE: Form is not complete without Source of base aerial photo/ma	put the figures requested (figures can be combined). p Kitsap County GIS					
OVERALL WETLAND CATEGORY (based on functions or special characteristics)						

1. Category of wetland based on FUNCTIONS

 Category I – Total score = 23 - 27
 _Category II - Total score = 20 - 22
 Category III - Total score = 16 - 19
 Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic			Habitat				
	Circle the appropriate ratings									
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			4			5		16

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	_
(can be added to figure above)		5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 get	s inundated by overbank flooding from that
stream or river,	

___The overbank flooding occurs at least once every 2 years.

Wetland	name	or	number	G
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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	lity
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 =	
Slope is > 2%-5% points =	
Slope is greater than 5% points =	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3	<u>= 0</u> 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 high	her
than 6 in.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = Dense, uncut, herbaceous plants > ½ of area points =	
Dense, woody, plants > ½ of area points =	
Dense, uncut, herbaceous plants > ¼ of area points =	
Does not meet any of the criteria above for plants points =	
Total for S 1 Add the points in the boxes above	
	og 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? $Yes = 1$ No =	0 1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No =	0
Total for S 2 Add the points in the boxes above	ve 1
	g 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?	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 on the 303(d) list. Yes = 1 No =	
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer if there is a TMDL for the basin in which unit is found.</i> Yes = 2 No =	
Total for S 3 Add the points in the boxes above	ve 4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the ratin	g on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	ion
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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions Points = 0 Record the rating on	1 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 surface runoff? Yes = 1 $No = 0$	0
Rating of Landscape Potential If score is:1 = Mv_0 = L	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	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	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bedAquatic bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 ——Y 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	0
take Fringe Wetland 2 points 2 points 2 points 2 points	
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 c 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **G**

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
<u>✓</u> Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	2
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 are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	
Total for H 1 Add the points in the boxes above	5
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 11 = 28 %	
If total accessible habitat is:	
	2
20-33% of 1 km Polygon points = 2	2
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $18 + [(\% \text{ moderate and low intensity land uses})/2] 13 = 31 %$	
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches points = 2	_
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	<u> </u>
Rating of Landscape Potential If score is:4-6 = H<1-3 = M<1 = L Record the rating on the	ie 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 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 or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species	1
It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	
It has been categorized as an important habitat site in a local or regional comprehensive plan, in a	
Shoreline Master Plan, or in a watershed plan Site has 1 or 3 priority habitats (listed on payt page) within 100 m	
Site has 1 or 2 priority habitats (listed on next page) within 100 m	
Site does not meet any of the criteria above points = 0	
Rating of Value If score is: 2 = H 1 = M 0 = 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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

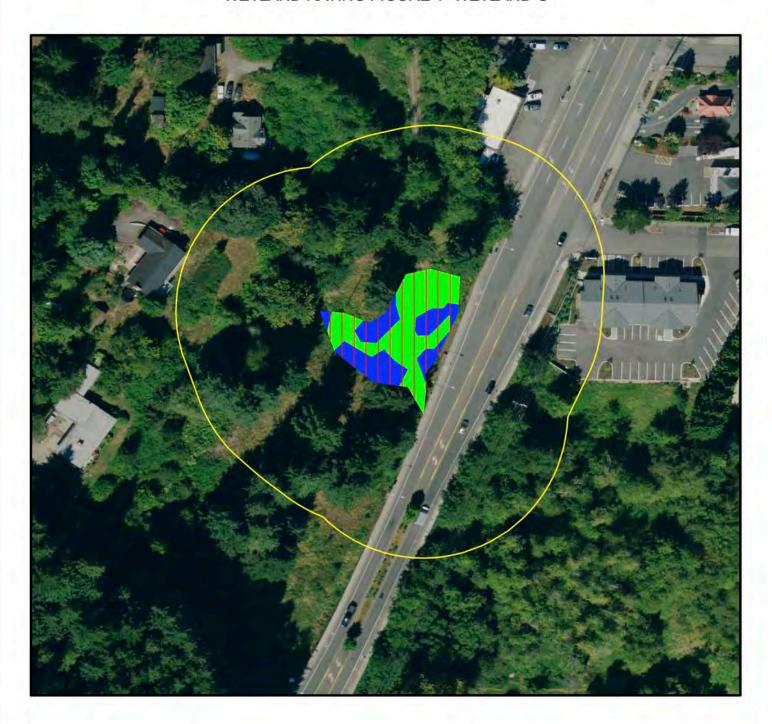
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS		
Wetland Type	Category	
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.		
SC 1.0. Estuarine wetlands		
Does the wetland meet the following criteria for Estuarine wetlands?		
The dominant water 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		
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	Cat. I	
than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , 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-		
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		
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		

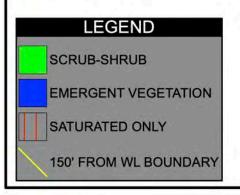
SC 4.0. Forested Wetlands		
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate		
the wetland based on its functions.		
Old-growth 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?	I	
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	I	
The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt)	6-4-1	
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	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	I	
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
mowed grassland.		
The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	I	
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	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	I	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
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	I	
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	I	
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?	I	
Yes = Category III No = Category IV	6-: "	
	Cat. IV	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

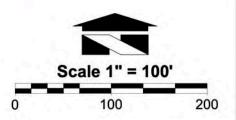
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND G







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure G-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND G





RELATIVELY UNDISTURBED

LOW/MOD. INTENSITY

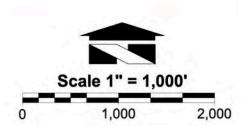
HIGH

INTENSITY

ACCESSIBLE HABITAT

WETLAND

1 KM FROM WETLAND CONTRIBUTING BASIN



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

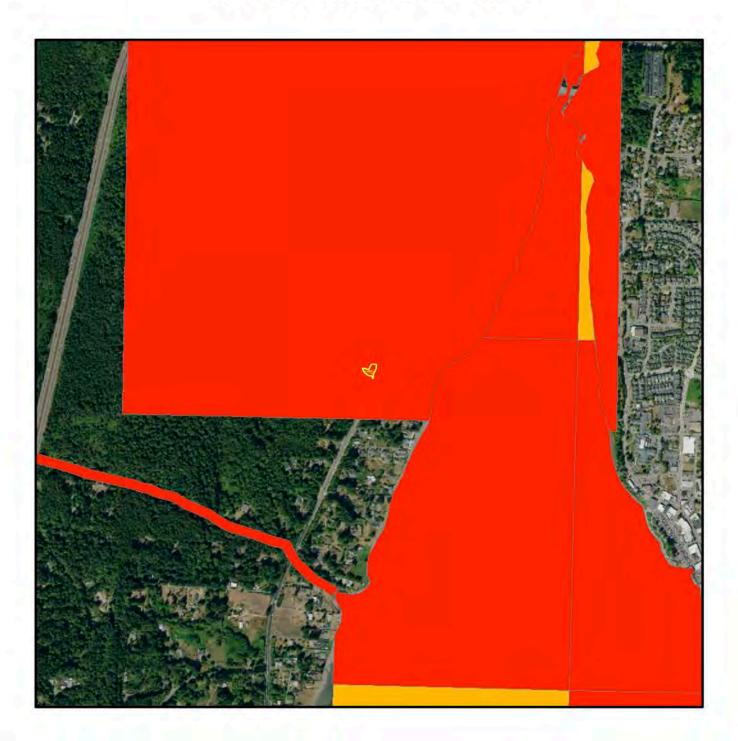
Email: mailbox@wetlandresources.com

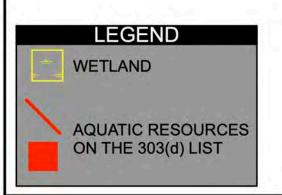
WETLAND RATING Wetland G

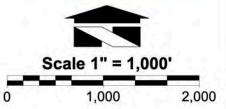
JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure G-2 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND G







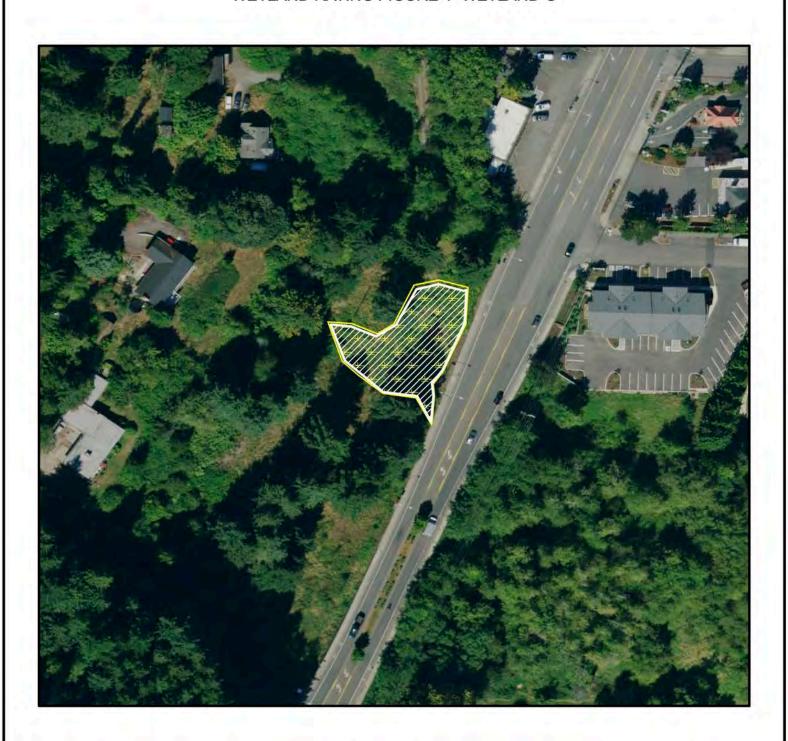
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

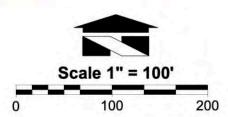
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure G-3 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND G







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

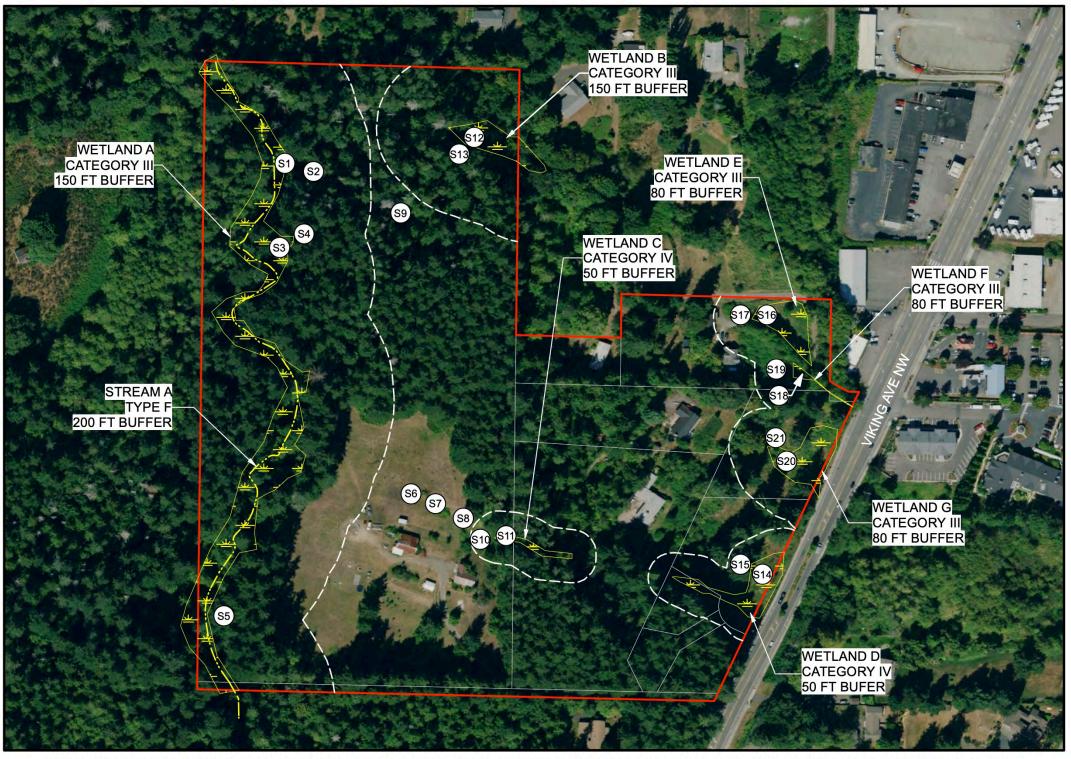
n Figure G-4 WRI Job # 21199 Rated by: AH

APPENDIX C:

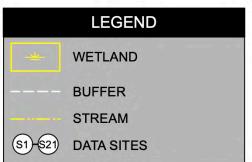
WETLAND AND STREAM DELINEATION MAP

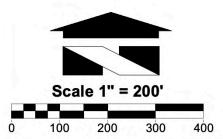
WETLAND AND STREAM DELINEATION MAP <u>VIKING AVENUE NW</u>

PORTION OF SECTION 15, TOWNSHIP 26N, RANGE 1E, W.M.



PLEASE NOTE: WETLAND AND STREAM FLAGS WERE LOCATED WITH A TRIMBLE GPS UNIT. THIS DOES NOT REPRESENT A PROFESSIONAL SURVEY.





Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045 Email: mailbox@wetlandresources.com Wetland and Stream Delineation Map

VIKING AVENUE NW

City of Poulsbo

JKM Holdings, LLC Attn: Geoff Sherwin PO Box 188 Puyallup, WA 98371

Sheet 1/1 WRI #: 21199 Drawn by: AH Date: 06/02/2022

Exhibit C

Grette1

Viking Ave. PRD Third Party Review

July 19, 2022

TECHNICAL MEMORANDUM

Prepared for: Edie Berghoff July 19, 2022

Associate Planner City of Poulsbo 200 NE Moe Street Poulsbo, WA 98370 Phone (360) 394-9737

Prepared by: Grette Associates^{LLC} File No.: 208.001.1600

2102 North 30th Street, Ste A

Tacoma, WA 98403

Re: Viking Ave. Planned Residential Development: Third-Party Review

1 INTRODUCTION

Grette Associates is under contract with the City of Poulsbo (City) to assist in the review of a Wetland and Stream Delineation Report (the "Report"; May 25, 2022) that was prepared by Wetland Resources, Inc. (WRI) in support of the Viking Avenue NW Planned Residential Development (PRD) project ("the Project").

The purpose of this review is to verify the conditions described in the Report, along with the wetland and stream boundaries and wetland rating information.

2 METHODS

2.1 Site Visit

On July 12, 2022, a Grette Associates wetland biologist visited the proposed Project site to examine the areas within the Project boundaries for consistency with the information in the submitted Report. All accessible and identifiable areas within the proposed Project boundaries were evaluated.

2.2 Document Review

Grette Associates conducted a thorough review of the submitted Report and compared the conditions stated to what was observed during the site visit. The purpose of this review was to verify the accuracy of the delineations on site, and the accuracy and completeness of the wetland rating forms submitted to the City of Poulsbo, and their compliance with the current version of Chapter 16.20 of the Poulsbo Municipal Code (PMC).

Fx: 253.573.9321

3 RESULTS

3.1 **Site Visit Review**

During Grette Associates' site visit on July 12, 2022, the Project site was traversed to identify proposed wetlands and stream locations, and any other critical areas as defined in Chapter 16.20 of the PMC. Grette Associates confirmed the presence of Wetlands A, C, D, E, F, G, and Stream A. Wetland B could not be located due to the absence of flags (observed flag debris on ground in the area). Wetlands C, D, F, and G were found to be accurately described as recorded in the Report. The Type-F1 rating of Stream A (North Fork Johnson Creek) was also confirmed, as 6 to 8 juvenile salmonids (either coho salmon or cutthroat trout) were observed near flag A-32 during the site visit review. Type F1 streams require a 200-ft buffer in accordance with Table 16.20.315 of the PMC.

During the site visit review, several issues were noted with the field delineations that should be addressed. First, none of the data plots noted on the wetland delineation map were flagged in the field. As a result, Grette Associates could not verify the data collected on the submitted datasheets. All data plots and boundary locations should be conspicuously flagged in the field for location and verification.

Grette Associates noted an area of Wetland A that was not encompassed by WRI's wetland delineation flagging. This expansion of Wetland A is located at the midpoint between flags A-14 and A-15. In our opinion, a flag point should be added between A-14 and A-15, and the boundary should be extended east (perpendicular to the creek channel) approximately 15 ft.

While Grette Associates found only 1 (S16) of the 21 reported data plots due to the absence of flagging, the conditions observed in the general locations of the plots were found to be consistent with the conditions noted on the datasheets.

No other unidentified critical areas (i.e., wetlands or streams) were observed on the property during this site visit.

3.2 **Document Review**

3.2.1 Wetlands

The wetland rating forms for each wetland in the Report were reviewed. In general, Grette Associates agreed with the wetland ratings and categories provided by WRI, with one exception. WRI rated Wetland A as a Depressional wetland. Based on review of the wetland at the site, it is Grette's professional opinion that Wetland A is better classified as a Slope wetland. Wetland A receives hydrologic support from seeping groundwater along the side slopes of the North Fork Johnson Creek (Stream A) ravine. In most locations along the stream, the wetland extends upslope along the ravine. Furthermore, there were very few indicators of overbank flooding, showing the wetland is not a Riverine system for rating purposes. Also, the occasional benches along the stream channel that did show indicators of standing water did not appear to amount to at least 10% of the total wetland area. As such, given the steep slopes of the ravine and the slope of the creek itself, along with the scarcity of ponded areas along the creek, we believe Wetland A is better classified as a Slope wetland. The consultant should reevaluate the hydrogeomorphic classification of Wetland A, and if appropriate rerate the wetland as a Slope wetland. If they still believe Wetland A is a Depressional feature, they should provide additional discussion documenting that conclusion.

3.2.2 Fish and Wildlife Habitat Conservation Areas

The classification of Stream A (North Fork Johnson Creek) as a Type F1 stream is appropriate. This stream is identified as a Type F stream according to WA DNR, and several juvenile salmonids were observed in the stream during Grette's site visit. Per Table 16.20.315 Type F1 streams are subject to a 200-foot buffer and a 25-foot building setback.

Grette Associates reviewed the location of the OHWM flags placed along the south bank of the stream, and is in general agreement with their placement.

4 SUMMARY

Upon thorough review, the submitted Report substantively complies with the provisions of Chapter 16.20 of the PMC. The summary below identifies those issues that are addressed herein or must be resolved and/or clarified to comply with the PMC.

- WRI placed fluorescent flagging along the wetland and stream OHWM boundaries. However, during our review we could not locate any of the 21 data plots identified by WRI. While we generally agree with the conditions noted on the datasheets by investigating the conditions in the assumed vicinity of the plots, WRI should make a point to place labeled fluorescent flagging at every soil data plot to ensure efficient verification. As we generally agree with the conditions reported by WRI, we are not recommending they reflag the soil plots for the purposes of our review.
- Wetland B could not be located during the site visit review. While one color photograph of the wetland was included in the delineation report, additional color photographs would be helpful in verifying the delineation. Because the accuracy of the field delineation was confirmed for the other wetlands on the site, if WRI can submit additional color photos of the wetland and boundary flagging from their field delineation we may be able to verify the boundary without an additional field inspection.
- The boundary of Wetland A was found to be generally accurate, with one exception noted above. WRI should revisit the delineated boundary between flags A-14 and A-15 to reevaluate conditions. Based on the conditions observed, we believe an additional flag should be placed approximately 15-20 feet east of the boundary between A-14 and A-15.
- According to the Report, Wetland A was hydrogeomorphically classified as a Depressional
 wetland. Based on the site inspection, it is Grette Associates professional opinion that this
 wetland is better classified as a Slope wetland. WRI should reevaluate the HGM
 classification of Wetland A and, if appropriate, provide an updated rating and buffer width
 for the wetland or provide supporting information to demonstrate that Wetland A should
 be classified as a Depressional wetland.

If you have any questions from this review, please contact me at (253) 573-9300, or by email at scottm@gretteassociates.com.

Regards,

GRETTE ASSOCIATES, LLC

Stote Iflen

Scott J. Maharry Associate Scientist

Exhibit C

Grette2

The Plateau at Liberty Bay: Third-Party Review

August 9, 2023

TECHNICAL MEMORANDUM

Prepared for: Edie Berghoff August 9, 2023

Associate Planner City of Poulsbo 200 NE Moe Street Poulsbo, WA 98370

Prepared by: Grette Associates^{LLC} File No.: 208.001.1900

2709 Jahn Ave NW, Suite H-5 Gig Harbor, WA 98335

Re: The Plateau at Liberty Bay: Third-Party Review

The City of Poulsbo (City) contracted with Grette Associates (Grette) to assist in the review of a Critical Areas Study and Mitigation Plan (the "Plan"; dated January 5, 2023) that was prepared by Wetland Resources, Inc. (WRI) in support of the Viking Avenue NW Planned Residential Development (PRD) project.

In response to Grette's March 13, 2023 third-party review, WRI provided a response memorandum (dated June 16, 2023) and a revised Plan (the "Revised Plan"; dated June 15, 2023) to address Grette's March 13, 2023 review comments. Provided below is a summary of Grette's March review comments (italic) followed by Grette's response upon review of the information contained in WRI's response memo and Revised Plan.

• Per Poulsbo Municipal Code (PMC) 16.20.230, the wetland where buffer averaging is proposed shall contain significant differences in characteristics that affect its habitat function. With the exception of the extreme western portion, Wetland C's buffer appears to largely consist of a mature upland forest. Furthermore, the Plan states that the buffer reduction areas associated with Wetland C are primarily maintained lawn and non-native vegetation. According to the delineation map and mitigation map provided in the Plan, the reduction area also appears to include a mature forested area. In summary, the Plan has not adequately demonstrated that Wetland C contains significant differences in characteristics that affect its ability to provide habitat functions;

Section 4.1 was updated to provide additional information to demonstrate that the proposed reduction areas in the eastern portion of Wetland C's buffer does not provide as much function as other areas within the buffer; however, this information is largely addressing water quality and hydrology buffer functions. While Grette agrees WRI's conclusion, this rationale is specific to the buffer and not the wetland itself. Per PMC 16.20.230, the **wetland** where buffer averaging is proposed shall contain significant differences in characteristics that affect its habitat function. According to the rating form provided in the Revised Plan, Wetland C provides low habitat function, largely due to the lack of plant community and wetland hydrology diversity. Given this

information and the buffer characterization provided in Section 4.1 of the Revised Report, it is Grette's professional opinion that the proposed reduction within Wetland C's buffer will not adversely affect existing habitat functions within Wetland C.

Please note, the Revised Plan included reference to an existing driveway and states that this feature is functioning as a buffer interruption. Per PMC 16.20.120, existing permanent substantial improvements (e.g., paved road) serve as a buffer interruption. The Revised Plan has not provided any supporting information to demonstrate that the existing driveway potentially meets the interruption criteria defined in PMC 16.20.120.

• Per PMC 16.20.230, buffer averaging shall be increased adjacent to high-functioning areas and decreased in lower-functioning areas. The reduced area appears to included native forested area and approximately half of the proposed additional buffer area for Wetland C appears to be situated in a low functioning area (i.e., existing lawn). The Plan needs to be revised accordingly;

Section 4.1 of the Revised Plan was updated to provide additional information to demonstrate that the proposed reduction area of Wetland C's buffer is in lower functioning areas. More specifically, as noted above, the Revised Plan summarizes how the eastern portion of Wetland C's buffer does not provide as much water quality and hydrology functions as other portions of the buffer because this area is downslope of the wetland. Grette concurs with this conclusion. The additional buffer area proposed is adjacent to higher functioning buffer area that is upslope of Wetland C. While the proposed additional buffer area is currently lawn/pasture area, upon completion, the proposed project will have completed buffer enhancement through the planting of an assortment of native shrubs and trees in this area as well as restore the area where the existing driveway extends through the buffer.

In summary, the Revised Plan has adequately addressed this comment.

• Per PMC 16.20.240, all regulated development activities proposed to impact wetlands or buffers shall adequately demonstrate mitigation sequencing. No specific section to address mitigation sequencing was provided. In addition, no supporting information is included to sufficiently demonstrate that existing topographic conditions and/or design constraints prevent the access road from being positioned south of Wetland D. There is an existing paved access road south of Wetland D where topography does not appear to currently limit access to the site. Improving and utilizing the existing access would avoid permanent wetland impacts and would stratify the mitigation sequencing requirements defined in Per PMC 16.20.240. The Plan needs to be revised to provide a sufficient mitigation sequencing analysis;

The Revised Plan was updated to include mitigation sequencing and adequately demonstrates that all avoidance and minimization measures were considered during the design of the proposed project; therefore, this comment has been sufficiently addressed.

Per PMC 16.20.735, a mitigation plan shall identify a proposed plan's goals and objectives.
 The Plan lacks discussion of any goals and objectives of the proposed mitigation to demonstrate that the wetland functions lost as a result of the proposed project would be adequately addressed through the proposed mitigation approach. The Plan needs to be revised accordingly;

The Revised Plan was updated to contain a goals and objective section which provides an adequate outline of how the proposed project will achieve the proposed mitigation strategy. As such, the Revised Plan has sufficiently addressed this comment.

• Per PMC 16.20.735, a mitigation plan shall contain a detailed construction and planting plan. With the exception of the proposed planting schedule, the Plan does not include any design or construction information to describe how wetland conditions will be established in the proposed wetland creation areas. The Plan needs to be revised to include sufficient design and construction information for conformance with PMC 16.20.735;

Section 5.2 of the Revised Plan includes a detailed narrative describing the general construction activities that will occur to establish the proposed wetland creation area. In addition, the Revised Plan includes a plan view figure and detail figure (Sheets 3 and 4) in Appendix D which shows the general location of the creation area as well as a cross-section detail showing that the targeted base elevation of the creation area will be similar to the elevation of Wetland C. In summary, the revised Plan has adequately addressed this comment.

• Per PMC 16.20.735, a mitigation plan shall contain performance standards to evaluate whether or not the goals and objectives of a mitigation plan are being achieved. With the exception of vegetation survival and coverage performance standards, there are no performance standards proposed to evaluate the success of the proposed wetland creation area to ensure that area meets wetland criteria (USACE 2010) and the compensatory mitigation requirements defined in PMC 16.20.240. The Plan should be revised accordingly;

The Revised Plan was updated to include a performance standard to evaluate the wetland creation area. More specifically, general evaluations and wetland hydrology assessments will be performed during each of the proposed monitoring years to ensure no reduction of the wetland creation area occurs. However, there is no performance standard associated with the last year of the proposed monitoring that includes collecting formal data to demonstrate that the creation area meets the criteria defined in PMC 16.20.210 and the USACE's *Regional Supplement* (2010). Grette recommends that the final monitoring event includes a formal wetland delineation of the wetland creation area to ensure the proposed project meets the no net loss requirements defined in PMC 16.20.205.

• Per PMC 16.20.735, monitoring shall occur for a minimum of five years but may be extended up to ten years depending on the complexity of a mitigation project. Given the complexity of the proposed mitigation (i.e., wetland creation), monitoring generally occurs for a longer duration (i.e., 10 years) to ensure the proposed wetland creation area meets wetland criteria (USACE 2010) and compensatory mitigation requirements defined in PMC 16.20.240 (Ecology, USACE, EPA 2021);

The Revised Plan proposed a 5-year monitoring period to evaluate the success of the wetland and buffer enhancement and wetland creation areas. While Grette agrees that a 5-year monitoring period for enhancement is sufficient, Grette does not believe a 5-year period is sufficient to monitor the success of the creation area. Wetland creation, specifically for scrub-shrub/forested wetlands, is typically monitored for a duration of 10 years with reports documenting conditions for monitoring years 1, 2, 3, 5, 7, and 10 (Ecology, USACE, EPA 2021). Per the Revised Plan, the portion of Wetland F (impact area) is forested and the proposed creation area is intended to create

similar conditions. As such, Grette recommends that the proposed monitoring program be revised to include two additional years (Years 7 and 10) of monitoring for the creation area.

• Per PMC 16.20.235, trails and trail-related facilities may be permitted if it is demonstrated that the proposed feature(s) meet the criteria defined in said section of code. The Plan does not address the proposed trail shown in the landscape plan; therefore, the Plan needs to be revised accordingly. If there is an error in the landscape plan than those plans need to be revised.

Pending City approval of the Revised Plan, this comment is no longer applicable.

In summary of this review, the Revised Plan has adequately addressed Grette's buffer averaging comments; however, as noted above, Grette recommends that the final monitoring event includes a formal wetland delineation of the wetland creation area and that the creation area is monitored two additional years (Year 7 and Year 10) to ensure no net loss (PMC 16.20.205). Once these changes are made, Grette recommends that the City accept this document.

Please note that the Revised Plan states that it was prepared to address the City's critical area requirements defined in Chapter 16.20 of the PMC and does not mention if the proposed project has coordinated and/or is pursuing authorization from Ecology and the USACE for the permanent wetland impacts.

If you have any questions from this review, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,

Chad Wallin, PWS

Biologist

References:

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-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and the U.S. Environmental Protection Agency Region 10. 2021. Wetland Mitigation in Washington State-part 1: Agency Policies and Guidance (Version 2). Washington State Department of Ecology Publication #21-06-003.

WRI2

Stormwater Outfall – Off-site Wetland Hydroperiod Protection

December 15, 2023

See Drainage Report - Appendix E, Attachment A (pdf page 86)



December 19, 2023

Entitle Fund Two, LLC Attn: Geoff Sherwin PO Box 188 Puyallup, WA 98371

Re: Plateau at Liberty Bay (P-1-12-06-22-02) Stormwater Outfall – Off-site Wetland Hydroperiod Protection

Wetland Resources, Inc. (WRI) has reviewed the stormwater flow calculations for pre-developed and mitigated conditions as well as the proposed stormwater management plan for the Plateau at Liberty Bay development project. The purpose of this memo is to provide a discussion of potential impacts to the hydroperiod of an off-site wetland (Wetland H) from the proposed project stormwater outfall.

Proposed Stormwater Management System

Runoff from the proposed subdivision will be collected and routed to the stormwater vault located in the eastern portion of the site, where it will be detained and treated. The vault outfall, along with a small amount of collected runoff that bypasses the vault, discharges to existing stormwater infrastructure in Viking Avenue. The existing infrastructure carries stormwater through the municipal stormwater system, via a series of existing pipes and catch basins, and outlets to a ditch on the east side of Viking Avenue. This ditch conveys water through an off-site wetland (Wetland H) and eventually into Liberty Bay. As part of the requirements for stormwater management design, flow rates from the project site were calculated for pre- and post-development conditions. The flow volume model shows that there will be a total water volume increase of more than 20 percent post-development in September, October, and November. If site plan changes were implemented to reduce the stormwater volume discharged, the September – November period deviation would be reduced. However, this would create an increase in the deviation from normal in the drier months, reducing the volume of runoff exiting the site. Therefore, it is not possible to maintain the existing flow rate for all months utilizing the existing model.

Wetland H

Please note that Wetland H is located off-site and information about this wetland was collected from publicly available resources, aerial photographs, and observations from public rights-of-way.

Wetland H is a Category II, slope wetland located between Viking Avenue and Liberty Bay. This wetland is documented on several public resources, including the City of Poulsbo's wetland map. Site plans and figures associated with previously approved development projects in the area show multiple stormwater discharges within or adjacent to Wetland H. These discharge stormwater runoff into the wetland at several locations.

Existing sources of hydrology for the off-site wetland include high groundwater, precipitation, and stormwater runoff from adjacent, existing developments and Viking Avenue. Hydrology on the eastern side of the wetland is also influenced by the tide cycle of Liberty Bay. The wetland's location and surrounding topography allow water from these sources to pass through the wetland, especially during large storm events. Since this wetland is a slope wetland, it does not impound or retain water for long periods of time. As such, the water level in the wetland rises and falls regularly, particularly during the wet season when water levels peak during large rain events and subside between events. Additionally, the existing culvert that will convey stormwater from the project site into the wetland enters a ditch-like channel. This channel directs stormwater straight through the wetland to Liberty Bay, limiting the influence of the stormwater from this input on the wetland hydrology.

Hydrologic Functions and Values

Currently, Wetland H provides a moderate value for water quality functions and a low value for hydrological functions. The hydrology within Wetland H is influenced by the multiple stormwater inputs and runoff entering the wetland. The vegetation within this wetland does slow stormwater runoff, allowing filtration of sediments and pollutants, but the value of these functions is limited by the sloped nature of the wetland, which is not conducive to retaining water for a long duration of time.

After construction of the Plateau at Liberty Bay development, Wetland H will continue to receive hydrology from the same sources as it does under current conditions. Stormwater runoff from the project site will be collected, detained, and treated prior to entering the existing municipal stormwater infrastructure. This will meter the volume of water exiting the project site and ensure the stormwater leaving the site is clean. Controlling the volume of water leaving the site and only contributing clean water to the existing stormwater system will not impact water quality within Wetland H since sediment and pollutants from the project site runoff will have been filtered out.

The volume of water leaving the project site is projected to be slightly higher from September through November, which is within the transitional period from the dry season to the wet season. Precipitation, and subsequently wetland hydrology, fluctuates greatly at this time of year. By providing a more consistent, metered amount of water leaving the project site, the proposed stormwater system will not impact wetland hydrology.

Conclusion

The difference in water volumes leaving the project site under current and proposed conditions for September through November will not have a detrimental effect on the functions provided by Wetland H. The proposed stormwater system design will support wetland hydrology and will result in improving the water quality within the off-site wetland.

If you have any further questions, please feel free to contact me at (425) 337-3174.

Wetland Resources, Inc.

Meryl Kamowski, PWS

Senior Ecologist

Enclosures: Wetland H rating form and figures

Mengl A. Kamongini

Proposed Stormwater Discharge Location figure

RATING SUMMARY – Western Washington

Name of wetland (or ID #): \underline{PLB} - Wetland	H (off-site)	_ Date of site	e visit: 10/7/2022		
Rated by M.Kamowski		YesNo	Date of training 03/2015		
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y <u> </u>				
NOTE: Form is not complete with Source of base aerial photo/ma		figures can b	e combined).		
		_			

OVERALL WETLAND CATEGORY _____ (based on functions <u>\(\nu\)</u> or special characteristics___)

1. Category of wetland based on FUNCTIONS

 Category I — Total score = 23 - 27
 _Category II — Total score = 20 - 22
 _Category III – Total score = 16 - 19
 _Category IV — Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Hydrologic Habitat		t			
				C	ircle th	е арр	propri	ate rat	ings	
Site Potential	Н	М	L	Н	М	L	Н	Μ	Г	
Landscape Potential	Н	М	L	Н	М	L	Н	М	\Box	
Value	Н	М	L	Н	М	L	Н	М	Г	TOTAL
Score Based on Ratings		6			5			6		17

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H 8 = H, H, M 7 = H, H, L 7 = H, M, M 6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L 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	~

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 polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	
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 total 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 total 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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	5
(can be added to figure above)		3
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and total habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?
 - _ _The wetland is on a slope (slope can be very gradual),
 - _ ✓ _The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,
 - _ \(\bigcup \) 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

Wetland name or number H

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 t	than
2 HGM classes within a wetland boundary, classify the wetland as Denressional 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 change in elevation for every 100 ft of horizontal distance.)	
Slope is 1% or less Slope is > 1%-2% points = 3 points = 2	1
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. 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	2
Total for S 1 Add the points in the boxes above	3
Rating of Site Potential If score is:12 = H6-11 = M0-5 = L	
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? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources	1
Total for S 2 Add the points in the boxes above	2
Rating of Landscape Potential If score is: <u>v</u> 1-2 = M0 = 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? (Answer YES if there is a TMDL in development or in effect for the basin in which unit is found.) Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v2-4 = H1 = M0 = L Record the rating on	the first page

Wetland name or number $\underline{\mathsf{H}}$

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions Points = 0	1
Rating of Site Potential If score is: <u>1 = M 0 = L</u> Record the rating on	tne jirst 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = 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: The sub-basin immediately downgradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther downgradient No flooding problems anywhere downstream points = 0	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	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:1 = Mv_0 = L	the first page
NOTES UND TREED OBSERVATIONS.	

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac. Aquatic bed 4 structures or more: points = 4 ✓ Emergent 3 structures: points = 2 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 ✓ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ✓ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon 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 if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 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 2 types present: points = 1 Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland ✓ Intermittently or 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 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, Canada thistle 1 If you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0H 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. 0 Low = 1 point Moderate = 2 points None = 0 points All three diagrams in this row are High = 3 points

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in. diameter and 6 ft long). Standing snags (dbh > 4 in.) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree)	2
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 are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)	2
Total for H 1 Add the points in the boxes above	7
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	he first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland. Calculate: % relatively undisturbed habitat 0 + [(% moderate and low intensity land uses)/2] 0 = 0 % 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 points = 1 v < 10% of 1 km Polygon points = 0	0
H 2.2. Total habitat in 1 km Polygon around the wetland. **Calculate: % relatively undisturbed habitat 14 + [(% moderate and low intensity land uses)/2] 12 = 27 % Total habitat > 50% of Polygon points = 3 Total habitat 10-50% and in 1-3 patches points = 2 Total habitat 10-50% and > 3 patches points = 1 Total habitat < 10% of 1 km Polygon points = 0	2
H 2.3. Land use intensity in 1 km Polygon: \checkmark > 50% of 1 km Polygon is high intensity land use \le 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	0
Rating of Landscape Potential If score is:4-6 = H1-3 = M< 1 = L Record the rating on the	e 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 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 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 Natural Resources data It has been categorized as an important habitat site in a local or regional comprehensive 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 Site does not meet any of the criteria above points = 0	2
Rating of Value If score is: \checkmark 2 = H1 = M0 = L	he first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Version 2, July 2023

					L	ı	
Wetland	name	or	num	ıber	•	ı	

WDFW Priority Habitats

See complete descriptions of Priority Habitats listed by WDFW, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008 (current year, as revised). Priority Habitat and Species List. 133 This list was updated for consistency with guidance from WDFW.

This question is independent of the land use between the wetland unit and the Priority Habitat. All vegetated wetlands are by definition a Priority Habitat but are not included in this list because they are addressed by this rating system.

Со	unt how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:
	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. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
	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.
	Fresh Deepwater: Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
	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. Do not select if Fresh Deepwater habitat is also present.
~	Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
V	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) diameter at breast height (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.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf
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Wetland name or number H
Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, WDFW's Management Recommendations for Oregon White Oak 134 provides more detail for determining if they are Priority Habitats
Riparian: The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
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.
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.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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 <i>Spartina</i> , see chapter 4.8 in the manual.	Cat. I
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 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. Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons	Cat. I
on the WNHP <u>Data Explorer</u> ? ¹³⁵ Yes = Category I No – Go to SC 2.2 SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common	
ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the	
presence of these elements.	
Yes – <u>Submit data to WA Natural Heritage Program for determination</u> , ¹³⁶ Go to SC 2.3 No = Not a WHCV SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their	
criteria? 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 below.</i> 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 = 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 = 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 = Category I bog No = Not a bog	

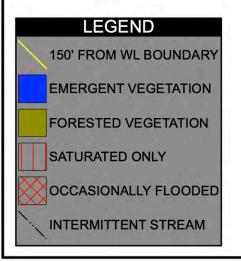
¹³⁵ https://www.dnr.wa.gov/NHPdata

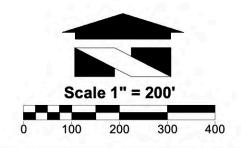
¹³⁶ https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf Wetland Rating System for Western WA: 2014 Update Rating Form – Version 2, July 2023

SC 4.0. Forested Wetlands	1	
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? If you answer YES, you will still need to rate	I	
the wetland based on its functions.		
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.	I	
Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	1	
species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).	I	
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?	I	
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	I	
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)		
The lagoon retains some of its surface water at low tide during spring tides		
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cat. I	
SC 5.1. Does the wetland meet all of the following three conditions?	Cat. I	
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 in H 1.5 in the manual).		
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed 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	I	
you answer YES, you will still need to rate the wetland based on its habitat functions.	I	
In practical terms that means the following geographic areas:	I	
Long Beach Peninsula: Lands west of SR 103	Cat I	
Grayland-Westport: Lands west of SR 105		
Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west	I	
of E. Oceans Shores Blvd SW.	1	
Yes – Go to SC 6.1 No = Not an interdunal wetland for rating	Cat. II	
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	I	
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. III	
Yes = Category II No – Go to SC 6.3	I	
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?	1	
Yes = Category III No = Category IV		
Category of wetland based on Special Characteristics	NI/A	
If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND H







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

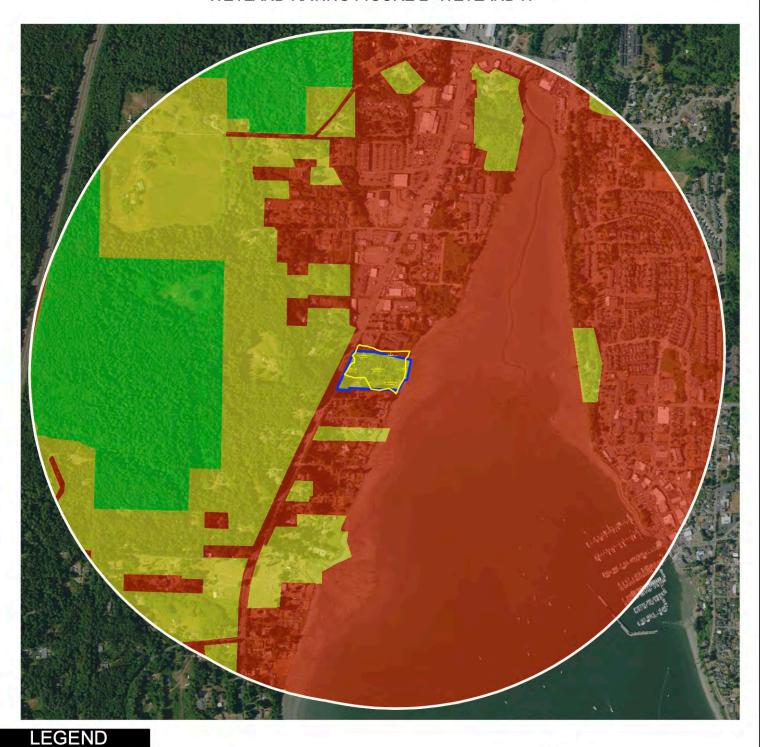
Phone: (425) 337-31/4 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

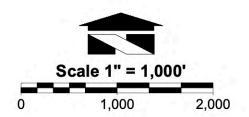
WETLAND RATING Wetland H

Figure H-1 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND H



RELATIVELY **UNDISTURBED** LOW/MOD. **INTENSITY** HIGH **INTENSITY ACCESSIBLE HABITAT WETLAND** 1 KM FROM **WETLAND**



Wetland Resources, Inc.

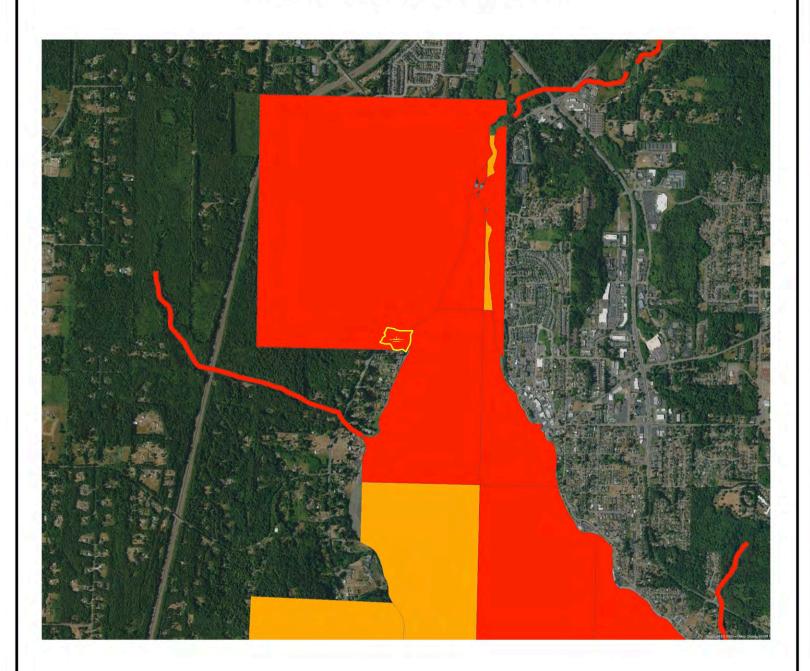
Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett. Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

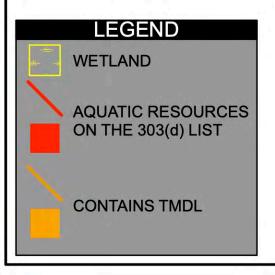
Email: mailbox@wetlandresources.com

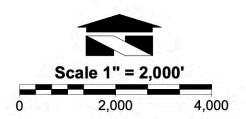
WETLAND RATING Wetland H

Figure H-2 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND H







Wetland Resources, Inc.

9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

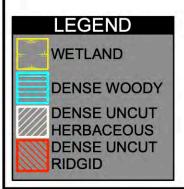
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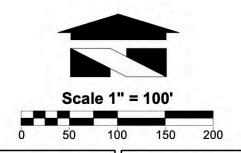
WETLAND RATING Wetland H

Figure H-3 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND H







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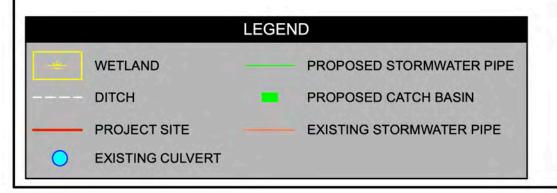
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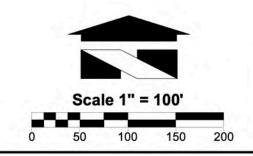
Figure H-4 WRI Job # 22210 Rated by: AJW

PROPOSED STORMWATER DISCHARGE LOCATION THE PLATEAU AT LIBERTY BAY

PORTION OF SECTION 15, TOWNSHIP 26N, RANGE 1E, W.M.







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Proposed Stormwater Discharge Location

THE PLATEAU AT LIBERTY BAY

Poulsbo, WA

Entitle Fund II, LLC Attn: Geoff Sherwin PO Box 188 Puyallup, WA 98371 Sheet 1/1 WRI #: 22210 Drawn by:MK Date: 12/19/2023

KPFF4

Minimum Requirement 8

January 3, 2024

See Drainage Report - Appendix E (pdf page 79)

KPFF5

Minimum Requirement 8

January 15, 2024

See Drainage Report - Appendix E, Attachment E (pdf page 79)

Grette3

MR-8 Third-Party Review

February 20, 2024





TECHNICAL MEMORANDUM

Grette3
3 pages

Prepared for: Edie Berghoff February 20, 2024

Associate Planner City of Poulsbo 200 NE Moe Street Poulsbo, WA 98370

File No.: 208.001.1900

Prepared by: Grette Associates, a division of Farallon Consulting, L.L.C

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Re: The Plateau at Liberty Bay: Third-Party Review

1 INTRODUCTION

The City of Poulsbo (City) contracted with Grette Associates (Grette) to assist in the review of the Stormwater Hydroperiod Analysis (dated January 3, 2024) and the Response Memo (dated January 15, 2024) prepared by KPFF. These documents were prepared in response to the hydroperiod modeling requirements defined in the State's stormwater manual, specifically Minimum Requirement 8 (MR-8) for wetland protection.

This review focused on evaluating the information contained in these documents for concurrence with the conclusions summarized in the analysis as well as compliance with any applicable standards of the current version of Chapter 16.20 of the Poulsbo Municipal Code (PMC).

2 REVIEW SUMMARY

2.1 Stormwater Hydroperiod Analysis Review

This analysis includes a summary of the six strategies that can be used for a project to meet the wetland hydroperiod protection criteria defined in the State's stormwater manual. This included, but was not limited to, demonstrating that all feasible measures to reduce the level of development and increasing stormwater infiltration measures have been considered.

Wetland hydroperiod modeling was performed by KPFF based on the applicable design and stormwater strategies summarized in the analysis. These results showed that stormwater associated with the proposed site plan was in compliance with the State's stormwater manual requirements for all months except for September, October, and November. These three months exhibited exceedances above the 20 percent maximum change allowed from existing conditions.

The analysis included an *Offsite Wetland Hydroperiod Protection* memorandum (Wetland Resources 2023a) that discussed the potential project impacts to the hydroperiod associated with Wetland H, a Category III slope wetland. Water Resources concluded that the exceedances from the MR-8 requirements would not have a detrimental effect on the existing hydroperiod within Wetland H because the project's stormwater discharge will be conveyed by the existing ditch that

flows through the wetland and therefore would limit the influence of stormwater input to Wetland H.

2.2 Response Memo Review

KPFF's response memo appears to be a revised memo that was included in their January Stormwater Hydroperiod Analysis that was submitted to the City. According to the memo, although the analysis concluded that post-project stormwater discharge would not adversely impact Wetland H's hydroperiods, this document was updated to include 5,200 square feet of buffer enhancement within Wetland A's buffer as a voluntary compensatory mitigation action to address hydroperiod modeling results. Please note, with the exception of the map and stating 5,200 square feet of buffer enhancement will occur, no additional information such as methods, planting schedule, etc. was provided.

3 CONCLUSION

Based on Grette's understanding of the State's stormwater manual wetland protection standards, compensatory mitigation is required when a proposed project demonstrates all feasible avoidance and mitigation measures have been considered but potential impacts remain to a wetland or the function it provides.

The Stormwater Hydroperiod Analysis appears to adequately demonstrate that all strategies to meet the wetland hydroperiod protection criteria have been considered and implemented to the extent feasible; however, as noted above, Wetland H's hydroperiod modeling continues to exhibit exceedances in September, October, and November.

Although Grette concurs with Wetland Resources' conclusion that the modeled exceedances will likely not result in significant impact to Wetland H given the existing ditch that will convey stormwater through the wetland, the State's stormwater manual contains modeling thresholds and any exceedances beyond those thresholds suggest there is a risk for a potential impact to a wetland's existing hydroperiod regime(s). As such, a compensatory mitigation requirement is applicable for this project to comply with the State's stormwater manual wetland protection standards.

The compensatory mitigation requirement criteria defined in the State's stormwater manual do not appear to outline detailed requirements that an applicant must demonstrate. For example, in-kind mitigation verses out-of-kind mitigation are not described. Wetland H is located offsite on private property which appears to prevent an option to provide compensatory mitigation within Wetland H or its applicable buffer. As such, the proposed 5,200 square feet of compensatory mitigation would occur onsite within Wetland A's buffer. According to the information provided in the Stormwater Hydroperiod Analysis, Wetland A, as well as Wetland C, will have stormwater (i.e., roof runoff) discharged to their buffers from 26 of the proposed lots. In Grette's professional opinion, since some stormwater will be conveyed to Wetland A's buffer upslope of the 26 proposed lots, the proposed compensatory mitigation is an acceptable approach to address the compensatory mitigation requirements defined in the State's stormwater manual.

In closing, Grette concurs with Wetland Resources' conclusion that the proposed project would likely not result in any adverse impact to Wetland H's existing hydroperiods and that the proposed buffer enhancement is sufficient to address the compensatory mitigation requirements outlined in the State's stormwater manual. However, no additional detail regarding the enhancement actions were provided in the analysis or response memo. In Grette's professional opinion, the Stormwater

Hydroperiod Analysis should be revised to meet the buffer enhancement plan requirements defined in PMC 16.20.740 or that this proposed buffer enhancement associated with this review be incorporated into the proposed project's mitigation plan (Wetland Resources 2023b).

This review is based on Grette's interpretation of the wetland protection requirements defined in the State's stormwater manual and does not include any additional stormwater review performed by City staff that may be necessary.

If you have any questions from this review, please contact me at (253) 573-9300, or by email at chadw@gretteassociates.com.

Regards,

Chad Wallin, PWS

Biologist

GRETTE ASSOCIATES, a division of Farallon Consulting, LLC

References:

Wetland Resources. 2023a. Plateau at Liberty Bay (P-1-12-06-22-02) Stormwater Outfall – Offsite Wetland Hydroperiod Protection. Technical Memorandum. Dated December 15, 2023. Prepared for Entitle Fund Two, LLC.

Wetland Resources. 2023b. Critical Areas Study and Mitigation Plan for The Plateau at Liberty Bay. Revised June 15, 2023. Prepared for Entitle Fund Two, LLC.

WRI3

Critical Area Study Mitigation Plan

March 1, 2024



CRITICAL AREA STUDY AND MITIGATION PLAN

FOR

THE PLATEAU AT LIBERTY BAY POULSBO, WA

Wetland Resources, Inc. Project #22210

Prepared By

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Prepared For
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Attn: Geoff Sherwin
PO Box 188
Puyallup, WA 98371

January 5, 2023 Revision #1: June 15, 2023 Revision #2: September 22, 2023 **Revision #3: March 1, 2024**

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1.0 Introduction

Wetland Resources, Inc. (WRI) conducted a delineation on February 15 and 18, 2022, to identify and evaluate jurisdictional wetlands and streams on and near the parcel assemblage 15260130232005, 15260130252003, 15260130262002, 15260130272001, 15260130332003, 15260130342002, 15260130362000, 15260130402004, 15260130552006, 15260130562005, and 15260130902102. The study area is 30.61 acres in size and is located at 19313, 19321, 19379, 19431 Viking Ave NW, & 19521 Laurene Ln NW, in the City of Poulsbo. The Public Land Survey System (PLSS) locator for the site is Section 15, Township 26N, Range 1E, W.M. It is located within the Puget -basin of the Kitsap Watershed (WRIA 15).

The intent of this document is to characterize wetlands, fish and wildlife habitat conservation areas, and associated buffers on and near the subject property, assess impacts associated with the proposed development, and provide mitigation for proposed impacts. The proposed project includes parcels 15260130232005, 15260130252003, 15260130332003, 15260130402004, and 15260130902102 and is 25.3 acres in size.



Figure 1 - Aerial view of the study area. (Not to Scale)

1.1 SITE DESCRIPTION

The site is located west of Viking Avenue NW and Liberty Bay. The parcel assemblage is developed with 5 single family-residences and outbuildings. The residences are accessible from Viking Avenue via multiple driveways. Most of the development on the site is in south and central areas. Maintained lawn and landscaping surround each of the residences, and a large, maintained pasture area is in the southwest. The forested areas are primarily vegetated with native plant species including Western red cedar (*Thuja plicata*), Douglas fir (*Pseudotsuga menziesii*), big leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), vine maple (*Acer circinatum*), salmonberry (*Rubus spectabilis*),

evergreen huckleberry (Vaccinium ovatum), salal (Gaultheria shallon), and sword fern (Polystichum munitum).

Topography of the site is varied, and generally slopes to the south and east towards Puget Sound. A ravine is located along the western portion of the site. Soils underlying the site are mapped by the Natural Resource Conservation Service (NRCS) Web Soil Survey as Alderwood gravelly sandy loam (0 to 8 percent slopes), (8 to 15 percent slopes), (15 to 30 percent slopes), Kapowsin gravelly ashy loam (0 to 6 percent slopes), and Poulsbo gravelly sandy loam (0 to 6) percent slopes.

Seven wetlands and one stream were delineated during the February 2022 site investigations. The wetlands were rated using the Department of Ecology's *Washington State Wetland Rating System for Western Washington, 2014 Update.* The stream was classified according to WAC 222-16-030, as required by Poulsbo Municipal Code (PMC) 16.20.310.B. Wetland buffers widths are listed in PMC 16.20.230.C and based on Appendix 8-C, Section 8C.2.3 of *Wetlands in Washington State – Volume 2* (Ecology Publication No. 05-06-008). The required stream buffer width was determined using PMC Table 16.20.315.

Table 1 below lists the wetlands and stream associated with the project site and their required buffer widths. The Wetland and Stream Determination Map depicts the locations of the wetlands, stream, and their associated buffers. Residential uses with greater than one unit per acre are considered high intensity land use per PMC 16.20.230.B. The buffers shown on the maps in Appendix D are the high intensity buffer widths.

Critical	Wetland	Wetland	HGM	High	Standard
Area	Rating/	Score	Classification	Intensity	Intensity
	Stream	(Overall/		Buffer*	Buffer
	Classification	Habitat)			
Wetland A	Category III	17/7	Depressional	150 Feet	110 Feet
Wetland B	Category III	18/6	Depressional	150 Feet	110 Feet
Wetland C	Category IV	15/5	Slope	50 Feet	40 Feet
Wetland D	Category IV	15/6	Slope	50 Feet	40 Feet
Wetland E	Category III	17/5	Slope	80 Feet ¹	60 Feet
Wetland F	Category III	17/5	Slope	80 Feet ¹	60 Feet
Wetland G	Category III	16/5	Slope	80 Feet ¹	60 Feet
Wetland H	Category III	17/6	Slope	150 Feet	110 Feet
Stream A	Type F1	N/A	N/A	200 Feet	200 Feet

Table 1 - Classification and Buffer Widths for the on-site Wetlands and Stream

¹ The Washington State Department of Ecology revised Appendix 8-C, Section 8C.2.3 of *Wetlands in Washington State* – *Volume 2* to reflect their updated determination that a score of 3-5 points is a low habitat score.

1.2 REVIEW OF EXISTING INFORMATION

Prior to conducting the site investigation, public resource information was reviewed to gather background information on the subject property and the surrounding area in regard to wetlands, streams, and other critical areas. These sources include the following:

- <u>United States Fish and Wildlife Service National Wetlands Inventory (NWI):</u> NWI identifies a riverine feature that flows south along the western property line. An off-site wetland is mapped approximately 130 feet east of the site, on the other side of Viking Way. An estuarine wetland associated with Puget Sound is located 700 feet east of the site.
- <u>USDA/NRCS Web Soil Survey:</u> NRCS identifies the soils underlaying the site as Alderwood gravelly sandy loam (0 to 8 percent slopes), (8 to 15 percent slopes), (15 to 30 percent slopes), Kapowsin gravelly ashy loam (0 to 6 percent slopes), and Poulsbo gravelly sandy loam (0 to 6) percent slopes.
- Washington Department of Fish and Wildlife (WDFW) SalmonScape Interactive Mapping System: This resource illustrates a stream in the same location as the riverine feature mapped by NWI. The stream is mapped with documented presence of Coho Salmon (Oncorhynchus kisutch) and Chum Salmon (Oncorhynchus keta).
- <u>WDFW Priority Habitat and Species (PHS) Interactive Map:</u> PHS maps the same stream that is mapped by SalmonScape and NWI. The stream is mapped with documented presence of Cutthroat Trout (*Oncorhynchus clarki*), Coho Salmon, and Chum Salmon. This resource also identifies the off-site wetland features that were mapped by NWI to the east.
- <u>Department of Natural Resources Forest Practices Application Mapping Tool (FPAMT):</u> This resource maps a stream in the western area of the site, and it is identified as a Type F water.
- <u>Kitsap County GIS Parcel Search:</u> This resource maps the same stream that is identified by the other resources in the west of the site. The area surrounding the stream is depicted as an erosion hazard. This resource also maps the same off-site wetlands to the east that are identified by NWI and PHS.

2.0 WETLAND AND STREAM DETERMINATION

2.1 METHODOLOGY

The ordinary high water marks (OHWM) of streams was determined using the methodology described in *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Anderson et. al. 2016). Streams are classified according to the water typing system provided in the Washington Administrative Code (WAC), section 222-16-030, Poulsbo Municipal Code (PMC) 16.20.310.B.

Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) (U.S. Army Corps of Engineers 2010). Under the routine methodology, the process for making a wetland determination is based on three steps:

- 1.) Examination of the site for hydrophytic vegetation (species present and percent cover);
- 2.) Examination of the site for hydric soils;
- 3.) Determining the presence of wetland hydrology.

2.1.1 Hydrophytic Vegetation Criteria

The manuals define hydrophytic vegetation as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. One of the most common indicators for hydrophytic vegetation is when more than 50 percent of a plant community consists of species rated "Facultative" and wetter on lists of plant species that occur in wetlands.

2.1.2 Soils Criteria and Mapped Description

The manuals define hydric soils as those that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Field indicators are used for determining whether a given soil meets the definition for hydric soils.

2.1.3 Hydrology Criteria

The 2010 Regional Supplement defines wetland hydrology as "areas that are inundated (flooded or ponded) or the water table is less than or equal to 12 inches below the soil surface for 14 or more consecutive days during the growing season at a minimum frequency of 5 years in 10." During the early growing season, wetland hydrology determinations are made based on physical observation of surface water, a high water table, or saturation in the upper 12 inches. Outside of the early growing season, wetland hydrology determinations are made based on physical evidence of recent inundation or saturation (i.e. water marks, surface soil cracks, water-stained leaves).

2.2 BOUNDARY DETERMINATION FINDINGS AND CLASSIFICATIONS

Seven wetlands and one stream were found on the subject site. No other critical areas were found on or near the subject property. Pursuant to Table 16.20.230.B of PMC, the wetland was classified using the Washington State Wetland Rating System for Western Washington, 2014 Update (Hruby 2014). Streams are classified according to the water typing system provided in the Washington Administrative Code (WAC), section 222-16-030, Poulsbo Municipal Code (PMC) 16.20.310.B.

2.2.1 Wetland A

Cowardin classification: Palustrine, Forested Wetland, Needle Leaved Evergreen, Seasonally

Flooded

HGM Rating Class: Depressional

Category: III Habitat Score: 7

Standard/High Intensity: 110 feet/150 Feet

Wetland A is a large Category III wetland associated with Stream A. The wetland is located at the bottom of the ravine in the western portion of the site and contains slope, depressional, and riverine wetland characteristics. As there are three hydrogeomorphic classes that each make up 10 percent of more of the overall wetland unit, Wetland A was rated using the rating form for depressional wetlands. This wetland received a total of 17 points on the depressional wetland rating form.



Figure 2 - Photo looking along Wetland A at bottom of ravine.

Vegetation within Wetland A includes Western red cedar (*Thuja plicata*; FAC), red alder (*Alnus rubra*; FAC), salmonberry (*Rubus spectabilis*; FAC), lady fern (*Athyrium filix-femina*; FAC), deer fern (*Blechnum spicant*; FAC), foamflower (*Tiarella trifoliata*; FAC), and skunk cabbage (*Lysichiton americanus*; OBL). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within Wetland A are black (10YR 2/1) silt loam from 0 to 8 inches. Between 8 and 16 inches beneath the surface, the soils are black (10YR 2/1) sandy loam with dark grayish brown (10YR 4/2) depletions. During our February 2022 site visit, conditions in Wetland A met primary hydrology indicators High Water Table (A2) and Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 7 receive standard 110-foot protective buffers.

2.2.2 Wetland B

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen,

Seasonally Flooded/Saturated

HGM Rating Class: Depressional

Category: III Habitat Score: 6

Standard/High Intensity Buffer: 110 feet/150 Feet

Wetland B is a depressional Category III wetland located in the northern portion of the property, in the northeast corner of Kitsap County parcel number 152601-3-023-2005. This wetland received a total of 18 points and 6 points for wildlife habitat function on the wetland rating form.



Figure 3 – Photo of ponded area in Wetland B.

Vegetation within Wetland B includes western red cedar (*Thuja plicata*; FAC) red alder (*Alnus rubra*; FAC), salmonberry (*Rubus spectabilis*; FAC), lady fern (*Athyrium filix-femina*; FAC), and slough sedge (*Carex obnupta*; OBL). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within Wetland B are black (10YR 2/1) silt loam from 0 to 16 inches. During our February 2022, site visit, standing water was observed within a portion of wetland. In other areas, the water table was observed at 1 inch below the surface and saturation was observed at the surface. Conditions within this wetland met multiple primary wetland hydrology indicators.

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 6 receive standard 110-foot protective buffers.

2.2.3 Wetland C

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen, Saturated

HGM Rating Class: Slope

Category: IV Habitat Score: 5

Standard/High Intensity Buffer: 40 feet/50 feet

Wetland C is a slope wetland located north of the residence at 19313 Viking Avenue Northwest and south of the residence at 19321 Viking Avenue Northwest. This wetland received a total of 15 points and 5 points for wildlife habitat function on the wetland rating form. This results in a Category IV rating.



Figure 4 - Looking west through Wetland C.

Vegetation in this wetland includes western red cedar (*Thuja plicata*; FAC), western lady fern (*Athyrium filix-femina*; FAC), and lawn/pasture grasses. Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland C are black (10YR 2/1) sandy loam with dark yellowish brown (10YR 4/6) redoximorphic features. This profile meets hydric soil indicator Redox Dark Surface (F7). During our February 2022 site visit, conditions in the wetland met hydrology indicators High Water Table (A2) and Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category IV wetlands with habitat scores of 5 receive standard 40-foot protective buffers.

2.2.4 Wetland D

Cowardin classification: Palustrine, Forested Wetland, Needle-Leaved Evergreen,

Seasonally Flooded/Saturated **HGM Rating Class:** Slope

Category: IV Habitat Score: 6

Standard/High Intensity Buffer: 40 feet/50 feet

Wetland D is a slope wetland in the southeast corner of the property, southeast of the house at 19321 Viking Avenue Northwest. This wetland received a total of 15 points and 6 points for wildlife habitat function on the wetland rating form.



Figure 5 - Photo of looking south towards Wetland D.

Vegetation within Wetland D includes knotweed (Fallopia sp.), Himalayan blackberry (Rubus spectabilis; FAC), (Phalaris arundinacea; FACW), and western lady fern (Athyrium filix-femina; FAC). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland D are very dark grayish brown (10YR 3/2) sandy loam from 0 to 5 inches. Between 5 and 16 inches beneath the surface, the soils are very dark gray (10YR 3/1) sandy loam with olive brown (2.5Y 4/4) redoximorphic features. During our February 2022 site visit,

saturation was observed at the surface. Wetland D meets wetland hydrology indicator Saturation (A3) and hydric soil indicator Redox Dark Surface (F6).

Pursuant to Table 16.20.230.B of PMC, Category IV wetlands with habitat scores of 6 receive standard 40-foot protective buffers.

2.2.5 Wetland E

Cowardin classification: Palustrine, Scrub-Shrub, Broad Leaved Deciduous, Saturated

HGM Rating Class: Slope

Category: III Habitat Score: 5

Standard/High Intensity Buffer: 60 feet/80 feet

Wetland E is a slope wetland in the northeastern portion of the property located at 19431 Viking Ave NW. The slope wetland is between two driveways that provide access across the site. This wetland received a total of 17 points and 5 points for wildlife habitat function on the wetland rating form.



Figure 6 - Photo looking northeast through Wetland E.

Vegetation within Wetland E includes Himalayan blackberry (*Rubus armeniacus*; FAC), rose (*Rosa sp.*), and reed canary grass (*Phalaris arundinacea*; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils within Wetland E are very dark gray to very dark grayish brown (10YR 3/1) sandy loam in the upper layer. Between 4 and 16 inches below the surface, soils are a dark gray (10YR 4/1) sandy loam with dark yellowish brown (10YR 4/6) redoximorphic features. During our February 2022 site visit, the soils were saturated to the surface. Wetland E meets wetland hydrology indicator Saturation (A3) and hydric soil indicator Depleted Matrix (F3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.6 Wetland F

Cowardin classification: Palustrine, Forested Wetland, Broad Leaved Deciduous, Saturated

HGM Rating Class: Slope

Total Score: 17 Category: III Habitat Score: 5

Standard/High Intensity Buffer: 60 feet/80 feet

Wetland F is a slope wetland located south of the driveway located at 19431 Viking Ave NW. This wetland extends down slope, towards Viking Ave NW. This wetland received a total of 17 points and 5 points for wildlife habitat function on the wetland rating form. This wetland is a Category III wetland with a low habitat score.



Figure 7 - Looking west through Wetland F.

Vegetation within Wetland F includes red alder (*Alnus rubra*; FAC) and reed canary grass (*Phalaris arundinacea*; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within Wetland F are generally very dark brown (10YR 2/2 sandy loam with gray (10YR 5/1) and yellowish brown (10YR 5/8) redoximorphic features. During our February 2022 site visit, saturation was observed at 8 inches below the surface. Wetland F meets hydric soil indicator Redox Dark Surface (F6) and wetland hydrology indicator Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.7 Wetland G

Cowardin classification: Palustrine, Scrub-Shrub Wetland, Broad Leaved Deciduous,

Saturated

HGM Rating Class: Slope

Category: III Habitat Score: 5

Standard/ High Intensity Buffer: 60 feet/80 feet

Wetland G is a slope wetland located on tax parcel 152601-3-036-2000. It extends off-site to the east near Viking Ave NW. This wetland is a Category III wetland with a low habitat score.



Figure 8 - Photo of Wetland G, facing west.

Vegetation within Wetland G includes knotweed (Fallopia sp.), Himalayan blackberry (Rubus armeniacus; FAC), and reed canary grass (Phalaris arundinacea; FACW). Dominant vegetation within the wetland is rated as facultative (FAC) or wetter and therefore the plant community within the wetland is considered hydrophytic.

Soils observed within the top 8 inches below the surface of Wetland G are a very dark brown (10YR 2/2) silt loam. Below 8 inches beneath the surface, soils are grayish brown (2.5Y 5/2) silt loam and olive brown (7.5YR 4/6) redoximorphic features. During our February 2022, site visit, saturation was observed at the surface. Wetland G meets hydric soil indicator Depleted Matrix (F3) and hydrology indicator Saturation (A3).

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 5 receive standard 60-foot protective buffers.

2.2.8 Wetland H (off-site)

Cowardin classification: Palustrine, forested Wetland, Broad Leaved Deciduous, Saturated

HGM Rating Class: Slope

Category: III Habitat Score: 6

Standard/ High Intensity Buffer: 110 feet/150 Feet

Please note that Wetland H is located off-site and information about this wetland was collected from publicly available resources, aerial photographs, and observations from public rights-of-way.

Wetland H is a Category II, slope wetland located to the east of the site, between Viking Avenue and Liberty Bay. This wetland is documented on several public resources, including the City of Poulsbo's wetland map. Site plans and figures associated with previously approved development projects in the area show multiple stormwater discharges within or adjacent to Wetland H. Vegetation within this wetland includes red alder (*Alnus rubra*; FAC), black cottonwood (*Populus balsamifera*; FAC), and willow (*Salix* sp.) Soils in Wetland H were not sampled as it is located off-site.

Pursuant to Table 16.20.230.B of PMC, Category III wetlands with habitat scores of 6 receive standard 110-foot protective buffers.

2.2.9 Stream A

Cowardin Classification: Riverine, Lower Perennial, Unconsolidated Bottom,

Cobble/Gravel **Stream Type:** F **Buffer:** 200 feet



Figure 9 - Photo of Stream A, facing north.

Stream A is a Type F1 stream associated with Wetland A and is known /documented habitat for multiple salmonids. Stream A is located along the western portion of the site and extends offsite to the north and south. Pursuant to Table 16.20.315 of PMC, Type F1 streams receive 200-foot protective buffers with additional building setbacks of at least 25 feet.

2.2.10 Non-wetland

The non-wetland areas of the site are vegetated with a canopy of western red cedar (*Thuja plicata*; FAC) Douglas fir (*Pseudotsuga menziesii*; FAC), western hemlock (*Tsuga heterophylla* FACU), and big leaf maple (*Acer macrophyllum*; FACU) The understory is vegetated with evergreen huckleberry (*Vaccinium ovatum*; FACU), red huckleberry (*Vaccinium parvifolium*; FACU), Himalayan blackberry (*Rubus armeniacus*; FAC), sword fern (*Polystichum munitum*; FACU), English ivy (*Hedera helix*; FACU), and (*Phalaris arundinacea*; FACW). Soils in non-wetland areas vary from very dark brown (10YR 2/2) silt loam to dark yellowish brown (10YR 4/4) sandy loam. Soils in these areas were generally dry during our February 2022 site visit and did not contain redoximorphic features.

3.0 WILDLIFE

Wetlands, streams, and their associated buffers contain resources for wildlife such as food, water, thermal cover, and hiding cover in close proximity. Given the habitat available, it is expected that the following mammalian species use the area: Columbian black-tailed deer (Odocoileus hemionus columbianus), black bear (Ursus americanus), bobcat (Lynx rufus), coyote (Canis latrans), deer mice (Peromyscus maniculatus), eastern cottontail (Sylvilagus floridanus), moles (Scapanus spp.), raccoon (Procyon lotor), bats (Myotis spp.), shrews (Sorex spp.), skunks (Mephitis spp.), squirrels (Sciuris griseus, Tamiasciurus douglasii), and Virginia opossums (Didelphis virginiana). Avian species expected to use the subject site include: Golden-crowned Kinglet (Regulus satrapa), Pacific Wren (Troglodytes pacificus), Common Raven (Corvus corax), American Crow (Corvus brachyrhynchos), American Robin (Turdus migratorius), Spotted Towhee (Pipilo maculatus), Black-capped Chickadee (Poecile atricapillus), Dark-eyed Junco (Junco hyemalis), Bushtit (Psaltriparus minimus), Northern Flicker (Colaptes auratus), Hairy Woodpecker (Picoides villosus), Downy Woodpecker (Dendrocopus villosus), Red-breasted Nuthatch (Sitka canadensis), Brown Creeper (Certhia americana), Varied Thrush (Ixoreus naevius), and Red-tailed Hawk (Buteo jamaicensis). A variety of amphibian species may also use the area, especially in and around the onsite stream. This list is not intended to be all-inclusive, and may omit some bird, mammal or amphibian species that utilize the site.

Based on review of the WDFW Priority Habitats and Species Maps and SalmonScape Stream A has documented presence of Coho (*Oncorhynchus kisutch*), Chum (*Oncorhynchus keta*), and Resident Coastal Cutthroat Trout (*Oncorhynchus clarki*).

4.0 Proposed Development

The applicant proposes to construct a residential development on the subject property, with access from the east via Viking Avenue NW. The development will include 63 residential lots, access roads, utilities, and stormwater facilities.

Buffer width modification through buffer averaging, as allowed in PMC 16.20.230, will be utilized to modify the Wetland B and Wetland C buffer widths. The Wetland B buffer averaging plan will accommodate the required road connection to the north. The Wetland C averaging plan will reduce the buffer width along north and east sides of the buffer, to allow for a pedestrian connection and the required wetland buffer setback. The necessary location for the entrance to the proposed subdivision will impact a small portion of Wetland F as well as areas of the Wetland F and Wetland G buffers. Mitigation for the impacts associated with the new access road will be provided through buffer enhancement, wetland enhancement, and wetland creation.

Runoff from the proposed subdivision will be collected and routed to the stormwater vault located in the eastern portion of the site, where it will be detained and treated. Collected and treated stormwater will discharge to existing stormwater infrastructure in Viking Avenue, which outlets to a ditch on the east side of Viking Avenue. This ditch conveys water through Wetland H (off-site) and into Liberty Bay. As part of compliance with the Stormwater Management Manual's Minimum Requirement 8 for wetland protection, an additional on-site mitigation planting area will be included in the buffer enhancement plan.

4.1 WETLAND BUFFER WIDTH AVERAGING PLAN

Modification of the Wetland B and C buffers is proposed through applying the provisions of buffer averaging as described in PMC 16.20.230 (E). Text from PMC is below in italics with discussion following in standard text.

- E. Buffer Width Averaging. The widths of buffers may be averaged if this will improve the protection of wetland functions, or if it is the only way to allow for reasonable use of a parcel. Averaging may not be used in conjunction with any of the other provisions for reductions of buffers in subsection F of this section.
 - 1. Averaging to improve wetland protection may be permitted when all of the following conditions are met:
 - a. The wetland has significant differences in characteristics that affect its habitat functions, such as wetland with a forested component adjacent to a degraded emergent component or a "dual-rated" wetland with a Category I area adjacent to a lower-rated area.

The Wetland B buffer is forested, and the buffer reduction area and addition area contain similar vegetation. Off-site to the west of Wetland B are existing residences, which produce increased noise and light within the buffer area. As these disturbances are off-site, it isn't possible to increase buffer area near the existing disturbance. The additional buffer area is designated to the south of Wetland B and will provide additional screening between the proposed homes and Wetland B.

The Wetland C buffer contains an area of maintained lawn upslope of the wetland to the west. An existing driveway crosses through the east end of the buffer. The proposed reduction area in the east/southeast of the buffer is downslope of Wetland C will in an area that is currently physically disconnected from the buffer on the west of the driveway. Given that the east reduction area is downslope of Wetland C, it does not have the opportunity to filter runoff or moderate surface flows prior to water entering the wetland. The buffer reduction area along the north of the Wetland C buffer is forested. Additional buffer for Wetland C is designated to the south/southwest of Wetland C and is primarily forested. As part of the buffer averaging plan, all areas of the Wetland C buffer that are maintained lawn or driveway will be restored with native vegetation. This will increase the amount of native vegetation and tree canopy within the Wetland C buffer, which will provide an increase in buffer functions. Subsequently, improving the buffer functions will increase the protection the buffer area affords Wetland C.

b. The buffer is increased adjacent to the higher-functioning area of habitat or more sensitive portion of the wetland and decreased adjacent to the lower-functioning or less sensitive portion.

Buffer modification of the Wetland B buffer width is necessary to accommodate a required road connection from the project site to the north. This road is for emergency vehicle access, and it is not anticipated to generate high volumes of traffic. In order to provide increased protection of the area of Wetland B closest to areas of proposed residential disturbance, a buffer addition area is designated between new home sites and Wetland B.

The buffer width in the west will not be reduced, maintaining the level of filtration and flow moderation the upslope buffer area provides. The Wetland C buffer has been reduced adjacent to the lower functioning portion of the wetland (near existing driveway) and increased adjacent to the higher functioning area of the wetland (adjacent to forested buffer). In order to provide increased protection of Wetland C, all areas of existing development or maintained vegetation will be restored. This will increase the level of protective functions the Wetland C buffer provides Wetland C.

c. The total area of buffer after averaging is equal to the area required without averaging.

Buffer averaging reduction for the Wetland B buffer totals 9,770 square feet and addition area totals 9,780 square feet. Wetland C buffer averaging reduction totals 3,435 square feet and additional buffer area totals 3,480 square feet. The buffer averaging plan provides a net gain of 10 square feet of buffer area for Wetland B and 55 square feet for Wetland C.

d. The buffer at its narrowest point is never less than three-quarters of the required width.

The narrowest buffer width proposed for Wetland B is 112.5 feet, which is 75 percent of the required 150-foot width. The narrowest width proposed for Wetland C is 37.5 feet, which is 75 percent of the required 50-foot width.

4.2 ACCESS ROAD IMPACTS AND MITIGATION

During the design process, three access points were reviewed in order to determine which location allows for an appropriate road grade and the least amount of impact to wetlands and/or buffer areas.

Alternative 1

This option placed the road between Wetland D and Wetland G, impacting the Wetland D and Wetland G buffer areas. However, to achieve a grade of no more than 12 percent, as required, this location necessitates a cut 23 feet in depth at the uphill end of the road. This significant cut would dictate the final grade of the east side of the development significantly lower than the existing grade. With this drastic change in topography, grading for interior site roads and development would also increase. Given the proximity of Wetland C and associated buffer area, this wetland and its buffer would be impacted by grading and/or construction of retaining walls.

Alternative 2

This option placed the location of the entry road to the south of Wetland D. This location would not impact any wetland or buffer areas. In order to for this access point to have a grade less than 12 percent, a 20-foot cut is required at the uphill end of the road. As with Alternative 1, this significant change in topography in proximity of Wetland C would result in impacts to Wetland C and its buffer as well. Additionally, grading necessary for this entryway would impact the well radius and the access to the existing residence on the property to the south. Since the well radius is between this entryway location and the house to the south, providing a new access from the interior of the subdivision is not possible without crossing the well radius.

Alternative 3 — Proposed Access Point

The proposed access location allows for access to the development to be at an appropriate grade and utilizes a natural ridgeline to keep grading completely outside of Wetland C and its buffer area. Alternative 3 will result in a total of 18,880 square feet of impact to the Wetland F and Wetland G buffers and 360 square feet of impact to Wetland F. The area of Wetland F that will be impacted for necessary grading and to provide access to properties to the north, is a narrow ditch-like swale along an existing driveway that provides limited functions. Wetland F is a slope wetland, and impacting the downslope end of this wetland will not change the hydrology of the upslope wetland area.

4.2.1 Mitigation Sequencing

When a project proposes unavoidable impacts to wetlands or buffers, application of mitigation sequencing is necessary per PMC 16.20.735.A.

Avoidance

There are four wetlands and associated buffer areas near or adjacent to Viking Avenue NW, between the arterial and the project site. With the elevation change between the road and the development site, any access from Viking Avenue NW will result in impacts to wetland or buffer areas.

Minimization of Impacts

Three different access points were considered while developing the site plans for the project and took into consideration impacts to wetlands, buffers, and adjacent properties. Impacts have been minimized to the greatest extent possible while allowing for access to the development and subsequently a new entrance for the lots north of the proposed road. The proposed access point represents the location with the minimum impact on adjacent property owners (access and necessary well radius), wetlands, buffers, and other impacts associated with a significant change from existing to final grade. The area of Wetland F that will be impacted is the area providing the least amount of functional value and will allow for the hydrology of the remaining area of Wetland F to be maintained.

Rectifying, Reducing, or Eliminating the Impact Over Time

The access road and associated grading will be permanent. It is not possible to rectify, reduce, or eliminate the impact over time.

Compensating for the Impact

As mitigation for these impacts, a combination of wetland and buffer enhancement as well as wetland creation and designation of additional buffer area will be provided. Details of the mitigation plan for the site entryway are described below.

4.2.2 Mitigation for Access Road

Since Wetland F and G are not located on the development site, buffer enhancement will be within the Wetland A/Stream A buffer. The quantity of mitigation for the unavoidable wetland buffer impacts is provided at slightly greater than a 1:1 ratio. Buffer enhancement will take place in an area of the Wetland A/Stream A buffer that is currently maintained lawn/pasture.

Impacted Area	Size of Impact (square feet)	Type of Mitigation	Mitigation Ratio	Mitigation Area (square feet)
Buffer of Wetland F and G	18,880 sf	Buffer Enhancement	1:1	18,900 sf
Wetland F	360 sf	Wetland Creation Wetland Enhancement	>1:1 >4:1	380 sf 1,640 sf

Table 2 - Summary of Impacts and Mitigation

A total of 360 square feet of Wetland F will be impacted. Compensation for this impact is provided through a combination wetland enhancement and wetland creation. As Wetland F is not located on the development site, wetland enhancement and creation will take place in and adjacent to Wetland C. The wetland mitigation plan proposed meets the required ratios in PMC 16.20.240.2.

4.3 CRITICAL AREA SIGNS AND FENCING

Per PMC 16.20.315, permanent signs and/or fencing may be required along the perimeter of wetland and stream buffers.

Signs and fencing will be installed along the perimeter of the wetland/stream buffers. In areas where residential lots are adjacent to the protected areas, split rail fence may be omitted if the lots are fenced. The signs will identify the protected areas and may be required to contain other information related to critical area protection.

4.4 BUILDING SETBACKS

In accordance with PMC 16.20.230.H a building and impervious surface setback of 15 feet is required from the approved wetland buffer boundary. A setback of 25 feet is required from stream (FWHCA) buffers per PMC 16.20.315.5. Minor structural or impervious surface intrusions into the areas of the setback, such as but not limited to fire escapes, open/uncovered porches, landing places, outside walkways, outside stairways, retaining walls, fences and patios, may be permitted if the department determines upon review of an analysis of buffer functions submitted by the applicant, that such intrusions will not adversely impact the wetland.

4.4.1 North Road Connection

The road connection to the north of the proposed subdivision is in the City of Poulsbo's comprehensive transportation plan and must be included in the plat. At the narrowest point, the distance between the standard 150-foot Wetland B buffer and the 200-foot Stream A buffer is three feet. In order to fit the required road and sidewalk through the buffers to the north, the Wetland

B buffer width will be averaged, as discussed in Section 4.1 above. With the modified Wetland B buffer width, the distance between the Stream A buffer and the Wetland B buffer is 38 feet. It is not possible to construct the road and sidewalk (30-foot total width) through this area outside of the 25-foot stream buffer setback or 15-foot wetland buffer setback.

4.4.2 Roads E and F

Road E and F extend up to the stream buffer as part of the City's comprehensive transportation plan. Additionally, Road F must connect to the existing access easement located along the south of the property. Should construction and/or grading necessary for these road stubs extend beyond into the Stream A buffer or impact vegetation within the buffer, additional impacts will be quantified, and the mitigation plan updated.

4.4.3 Minor Intrusions into Setbacks

Grading will occur within the Wetland C and Stream A buffer setbacks. Stormwater dispersion trenches will be located along the rear of the lots abutting the Stream A and Wetland C buffers and a pedestrian trail will be located within the Wetland C buffer setback.

Grading for four lots and three dispersion trenches are within the forested portion of the setback from Stream A. The grading and trenches to the south are in the area of existing, maintained lawn. Grading and installation of the dispersion trenches within this portion of the Stream A setback will not affect the functions provided by the buffer. As discussed above, dispersion trenches adjacent to the buffer will assist in maintaining the hydrology within the buffer and subsequently the stream and wetlands.

Grading in the west buffer setback of Wetland C is also within an area of lawn and previously disturbed vegetation. As these areas All disturbed areas within the Wetland C buffer will be enhanced as part of the mitigation plan. This will ensure vegetative screening between the development and the wetland.

Should construction and/or grading necessary for these minor intrusions extend into the buffer or impact vegetation within the buffer, additional impacts will be quantified, and the mitigation plan updated.

4.5 PROPOSED STORMWATER MANAGEMENT SYSTEM

Runoff from the proposed subdivision will be collected and routed to the stormwater vault located in the eastern portion of the site, where it will be detained and treated. The vault outfall, along with a small amount of collected runoff that bypasses the vault, discharges to existing stormwater infrastructure in Viking Avenue. The existing infrastructure carries stormwater through the municipal stormwater system, via a series of existing pipes and catch basins, and outlets to a ditch on the east side of Viking Avenue. This ditch conveys water through an off-site wetland (Wetland H) and into Liberty Bay.

As part of the requirements for stormwater management design, flow rates from the project site were calculated for pre- and post-development conditions. The flow volume model shows that

there will be a total water volume increase of more than 20 percent post-development in September, October, and November. If site plan changes were implemented to reduce the stormwater volume discharged, the September – November period deviation would be reduced. However, this would create an increase in the deviation from normal in the drier months, reducing the volume of runoff exiting the site. Therefore, it is not possible to maintain the existing flow rate for all months utilizing the existing model.

4.5.1 Hydrology of Wetland H

Existing sources of hydrology for the off-site wetland include high groundwater, precipitation, and stormwater runoff from adjacent, existing developments and Viking Avenue. Hydrology on the eastern side of the wetland is also influenced by the tide cycle of Liberty Bay. The wetland's location and surrounding topography allow water from these sources to pass through the wetland, especially during large storm events. Since this wetland is a slope wetland, it does not impound or retain water for long periods of time. As such, the water level in the wetland rises and falls regularly, particularly during the wet season when water levels peak during large rain events and subside between events. Additionally, the existing culvert that conveys stormwater from existing infrastructure into the wetland enters a ditch-like channel. This channel directs stormwater straight through the wetland to Liberty Bay, limiting the influence of the stormwater from this input on the wetland hydrology.

4.5.2 Hydrologic Functions and Values

Currently, Wetland H provides a moderate value for water quality functions and a low value for hydrological functions. The hydrology within Wetland H is influenced by the multiple stormwater inputs and runoff entering the wetland. The vegetation within this wetland does slow stormwater runoff, allowing filtration of sediments and pollutants, but the value of these functions is limited by the sloped nature of the wetland, which is not conducive to retaining water for a long duration of time.

After construction of the Plateau at Liberty Bay development, Wetland H will continue to receive hydrology from the same sources as it does under current conditions. Stormwater runoff from the project site will be collected, detained, and treated prior to entering the existing municipal stormwater infrastructure. This will meter the volume of water exiting the project site and ensure the stormwater leaving the site is clean. Controlling the volume of water leaving the site and only contributing clean water to the existing stormwater system will not impact water quality within Wetland H since sediment and pollutants from the project site runoff will have been filtered out.

The volume of water leaving the project site is projected to be slightly higher from September through November, which is within the transitional period from the dry season to the wet season. Precipitation, and subsequently wetland hydrology, fluctuates greatly at this time of year. By providing a more consistent, metered amount of water leaving the project site, the proposed stormwater system will not impact wetland hydrology.

4.5.3 Mitigation - Wetland Protection Minimum Requirement 8

While the proposed stormwater management plan is not anticipated to have a detrimental effect on the hydroperiod(s) of Wetland H, the flow volume model estimates the post-construction flow will vary by more than 20 percent of the existing flow for several months of the year. To comply with the Stormwater Management Manual's Minimum Requirement 8 for wetland protection, onsite mitigation is proposed. An area of Wetland A/Stream A buffer equivalent in size (5,200 square feet) to the channel within Wetland H will be enhanced. This mitigation area is contiguous with the 18,900 square feet of buffer enhancement associated with the access road impacts discussed in Section 4.2.2.

4.6 BUFFER FUNCTIONS AND VALUES ASSESSMENT

The methodology for this functions and values assessment is based on professional opinion developed through past field analyses and interpretation. This assessment pertains specifically to the buffers on-site, but is characteristic of similar wetland buffer systems found throughout western Washington.

4.6.1 Buffer Functions and Values Assessment - Existing Conditions

Water Quality

Vegetated wetland buffers obstruct water flow, thereby decreasing water velocity, allowing infiltration into the soil, and reducing soil erosion potential. The majority of the buffer areas on-site are forested, and an area of the Stream A buffer is maintained lawn/pasture. An existing driveway runs through the east of the Wetland C buffer. Vegetation within the buffers allow for infiltration and absorption of precipitation. The forested areas provide a moderate level for this function, limited by the gradient (Stream A buffer), existing infrastructure (driveway and trails), and areas with sparse understory. The lawn areas in the Stream A buffer and Wetland C buffer provide a low level for this function, as it is regularly mowed.

Hydrologic functions

Wetland buffers help to moderate water level fluctuations. Buffer vegetation impedes the flow of runoff, increases the humus content of soil (greater adsorption capacity), and preserves soil composition as intense rainfall hits the ground. Buffer within the forested areas perform this function at a moderate level, limited by the steep slope adjacent to the stream. The lawn areas in the Stream A buffer and Wetland C buffer provide a low level for this function, as it is regularly mowed.

Wildlife Habitat

Many birds, mammals, and amphibians use wetland and stream buffers for some part of their life needs. Their use of these sites is dependent on the valuable edge habitat found at the wetland/upland border. Buffer vegetation on the site consists of both forested and pasture areas. The on-site forested buffer areas contain multiple vegetation strata in the understory. The opportunity for perching, refuge, and availability of native food sources provides wildlife habitat. These areas provide a moderate to high level of functions. However, the lack of vegetative diversity and native species in the lawn areas limits the food sources available, and those areas provide limited refuge opportunities. The lawn areas in the Stream A buffer and Wetland C buffer provide a low level of wildlife habitat functions.

4.6.2 Post Construction Buffer Functions and Values

The forested buffer of Stream A/Wetland A will remain intact, and the proposed buffer averaging plan will maintain the total amount of forested buffer area adjacent to Wetland B and Wetland C. Enhancement within the Stream A/Wetland A buffer and the Wetland C buffer will increase the area of the buffers that are vegetated with native species and eliminate impervious surface in the Wetland C buffer. The buffer enhancement plantings will increase the diversity of vegetation structure, which will increase the opportunity for animals to seek shelter and escape within the buffer areas. The enhancement plantings will provide additional native food sources for wildlife on the site. These plantings will also assist in reducing the velocity of overland stormwater flow and improve pollutant and sediment filtration.

Additionally, dispersion trenches are proposed across the site to maintain the level of hydrology within the wetland and stream buffers. This plan will increase the width of the contiguous vegetated corridor along Stream A/Wetland A and maintain the hydrological regime of the wetland and buffer systems. Overall, the proposed project will provide equivalent, if not increased, protections to the on-site wetlands.

5.0 WETLAND AND BUFFER MITIGATION PLAN

5.1 GOALS AND OBJECTIVES

The overall goal of this mitigation plan is to replace the functions and values lost through impacts to wetlands and buffers. To achieve this, specific goals have been established and are listed below.

Goal 1: Compensate for temporal loss through buffer enhancement.

• Objective 1: Enhance 18,900 square feet of Stream A/Wetland A buffer.

Goal 2: Maintain total wetland area on the project site.

• Objective 2: Create 380 square feet of wetland adjacent to Wetland C.

Goal 3: Improve on-site wetland functions and values, through wetland enhancement.

• Objective 3: Enhance Wetland C through planting native species within the wetland.

5.2 WETLAND CREATION

Temporary access from the west through the Wetland C buffer to the creation areas will be from the west through the existing lawn and/or from the existing driveway to the east. These areas will be restored as described below. To avoid unnecessary impacts to soil and established vegetation, the smallest practical equipment shall be used to complete the wetland creation. The creation areas should be cut to 12 inches below the grade of the adjacent wetland (see cross section in Appendix D), then backfilled with 12 inches of topsoil with a high organic content (~15 to 30%). Work should be performed during the dry season to avoid sedimentation and hydrologic impacts to the adjacent wetlands. Where the creation area is adjacent to non-wetland, three to one (3:1) side slopes shall be cut, as necessary, from the edge of the wetland creation area into the buffer. After

placement of the topsoil, native species shall be planted in the creation area. Wetland Enhancement and Creation planting plan is included below.

5.3 MITIGATION PLANTING PLANS

A portion (18,900 square feet) of the Wetland A/Stream A buffer will be enhanced as compensation for impacts to the Wetland F and G buffers. An additional 5,200 square feet of the Wetland A/Stream A buffer will be enhanced as mitigation for the stormwater outfall into Wetland H. Wetland C will be enhanced, and the wetland creation areas will be planted with native species.

Wetland A Buffer Enhancement Plantings (24,100 square feet)

Common Name	Latin Name	Size	Spacing	Quantity
Douglas fir	Pseudotsuga menziesii	1 gallon	10'	120
Big-leaf maple	$A cer\ macrophyllum$	1 gallon	10'	120
Beaked hazlenut	Corylus cornuta	1 gallon	5'	120
Vine maple	Acer circinatum	1 gallon	5'	120
Osoberry	Oemleria cerasiformis	1 gallon	5'	120
Red elderberry	Sambucus racemosa	1 gallon	5'	120
Thimbleberry	Rubus parviflorus	1 gallon	5'	120
Snowberry	Symphoricarpos albus	1 gallon	5'	120

Wetland C Buffer Enhancement Planting Area 1 (3,130 square feet)

Common Name	Latin Name	Size	Spacing	Quantity
Douglas fir	Pseudotsuga menziesii	1 gallon	10'	15
Big-leaf maple	$A cer\ macrophyllum$	1 gallon	10'	15
Beaked hazlenut	Corylus cornuta	1 gallon	5'	20
Vine maple	Acer circinatum	1 gallon	5'	20
Osoberry	Oemleria cerasiformis	1 gallon	5 '	20
Red elderberry	Sambucus racemosa	1 gallon	5'	20
Thimbleberry	Rubus parviflorus	1 gallon	5'	20
Snowberry	Symphoricarpos albus	1 gallon	5'	20

Wetland C Buffer Enhancement Planting Area 2 (~900 square feet)

Common Name	Latin Name	Size	Spacing	Quantity
Vine maple	Acer circinatum	l gallon	5'	6
Osoberry	Oemleria cerasiformis	1 gallon	5'	6
Red elderberry	Sambucus racemosa	l gallon	5'	6
Snowberry	Symphoricarpos albus	l gallon	5'	6
Salal	Gaultheria shallon	l gallon	5'	6
Sword fern	Polystichum munitum	1 gallon	5'	6

The entirety of Wetland C and the wetland creation areas adjacent to the wetland will be planted with native species. Since Wetland C does have canopy cover, trees are specified at a spacing conducive to interplanting the new trees among established vegetation.

Wetland C Enhancement and Creation Plantings (2,020 square feet)

Common Name	Latin Name	Size	Spacing	Quantity
Western red cedar	Thuja plicata	1 gallon	15'	5
Sitka spruce	Picea sitchensis	1 gallon	15'	4
Red -osier dogwood	Cornus sericea	1 gallon	5'	14
Twinberry	Lonicera involucrata	l gallon	5'	14
Salmonberry	Rubus spectabilis	l gallon	5	14
Lady fern	Athyrium filix-femina	1 gallon	5'	14
Slough sedge	Carex obnupta	1 gallon	5'	14

Substitutions to the species identified in these planting lists may be allowed as approved by the project's biologist.

6.0 MITIGATION MONITORING PROGRAM

Wetland and buffer mitigation plans require monitoring, as described in PMC 16.20.735. Mitigation monitoring requirements are outlined in PMC 16.20.745. The following monitoring program was designed to meet these requirements.

6.1 REQUIREMENTS FOR MONITORING PROJECT

- 1. Initial compliance/as-built report
- 2. Annual site inspection (once in the fall) for five years
- 3. Annual reports including final report (one report submitted in the fall of Years 1-5)

Purpose for Monitoring

The purpose for monitoring shall be to evaluate the project's success. Success will be determined if monitoring shows at the end of five years that the definitions of success stated below are being met. Access shall be granted to the planting area for inspection and maintenance to the contracted landscape and/or consulting biologist and the City during the period of the bond or until the project is evaluated as successful.

Monitoring

Monitoring shall be conducted annually for five years. Site visits will occur in the fall of each year.

Vegetation Monitoring

Survivorship and areal coverage will be determined by a visual estimate of installed vegetation. Vegetation monitoring shall occur annually between May 15 and September 30 (prior to leaf drop), unless otherwise specified.

Wetland Creation Hydrology Monitoring

To ensure the wetland creation areas support wetland hydrology, the wetland creation boundaries will be marked with lathe or other permanent stakes. The perimeter of the wetland creation areas will be reviewed during the spring of each monitored year. Observed hydrological indicators will be recorded and reported in the annual monitoring report. If it appears that any existing wetland areas have reduced in size, the change in wetland areas will be demarcated and depicted on a map.

Photo points

At least four permanent photo points shall be established within the planting areas during the asbuilt site visit. Photographs will be taken from these points annually, to visually record the condition of the enhancement area over time. Photos shall be taken annually between May 15 and September 30 (prior to leaf drop), unless otherwise specified.

6.1.1 Monitoring Reports

Report Contents

Monitoring reports shall be submitted by December 31 of each year during the monitoring period. As applicable, monitoring reports must include descriptions/data for:

- a. Monitoring visit observations, documentation, and analysis of monitoring data collected;
- b. Photos from photo points;
- c. Determination whether performance standards are being met; and
- d. Maintenance and/or contingency action recommendations to ensure success of the project at the end of the monitoring period.

6.2 Project Success and Compliance

Upon completion of the proposed planting plan, an inspection by a qualified biologist will be made to determine plan compliance. A compliance report will be supplied to the City within 30 days of the completion of planting.

A consulting biologist will perform condition monitoring of the plantings in the fall (prior to leaf-drop) of each year. Buffer enhancement plantings will be monitored for five years, and wetland creation areas will be monitored for 10 years.

6.2.1 Buffer Mitigation Monitoring Schedule and Success Standards

An annual written report describing the monitoring results will be submitted to the City after the fall inspection. Final inspection of the buffer enhancement areas will occur five years after completion of this project. If the performance standards are not met at the end of five years, the monitoring duration for the buffer enhancement areas may be extended.

Performance Standards

Performance/success standards have been established to assess the success of the mitigation project in achieving the stated goals. Performance/success standards for buffer enhancement areas are as follows:

Year 1 Monitoring

Success Standard: 90 percent survival of planted species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

Year 2 Monitoring

Success Standard: 80 percent survival of planted species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

Year 3 Monitoring

Success Standard: Minimum 35 percent aerial coverage of native species

No greater than 15 percent coverage of invasive species.

Zero tolerance of Noxious weeds.

Year 5 Monitoring

Success Standard: Minimum 50 percent aerial coverage of native species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

In any monitored year, naturally occurring native species shall count toward the overall percent coverage of native species. The 15 percent coverage limit of invasive species does not apply to any areas of existing reed canarygrass. In areas where reed canarygrass is present prior to mitigation planting, the area will be deemed successful if the aerial coverage of reed canarygrass is reduced.

6.2.2 Wetland Mitigation Monitoring Schedule and Success Standards

A written report describing the wetland creation and enhancement monitoring results will be submitted to the City after the fall inspection for monitoring years 1-5, 7, and 10. The final inspection will include delineating the boundary of the wetland creation areas. If the performance standards are not met at the end of ten years, the monitoring duration for the wetland mitigation areas may be extended.

Performance Standards

Performance/success standards have been established to assess the success of the mitigation project in achieving the stated goals. Performance/success standards for wetland creation and enhancement areas are as follows:

Year 1 Monitoring

Success Standard: 90 percent survival of planted species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

No reduction in wetland creation boundaries/area

Year 2 Monitoring

Success Standard: 80 percent survival of planted species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

No reduction in wetland creation boundaries/area

Year 3 Monitoring

Success Standard: Minimum 35 percent aerial coverage of native species

No greater than 15 percent coverage of invasive species.

Zero tolerance of Noxious weeds.

No reduction in wetland creation boundaries/area

Year 5 Monitoring

Success Standard: Minimum 50 percent aerial coverage of native species

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

No reduction in wetland creation boundaries/area.

Year 7 Monitoring

Success Standard: Minimum 60 percent aerial coverage of native species.

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

No reduction in wetland creation boundaries/area.

Year 10 Monitoring

Success Standard: Minimum 80 percent aerial coverage of native species.

No greater than 15 percent coverage of invasive species.

Zero tolerance of noxious weeds.

Delineation of creation areas shows no net loss of wetland area.

In any monitored year, naturally occurring native species shall count toward the overall percent coverage of native species. The 15 percent coverage limit of invasive species does not apply to any areas of existing reed canarygrass. In areas where reed canarygrass is present prior to mitigation planting, the area will be deemed successful if the aerial coverage of reed canarygrass is reduced.

6.3 CONTINGENCY PLAN

If 20% of the plants are severely stressed during any of the inspections, or it appears 20% may not survive, additional plantings of the same species may be added to the planting area. Elements of a contingency plan may include, but will not be limited to, more aggressive weed and invasive species control, pest control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation. If it is determined that wetland hydrology is not present in the wetland creation areas, additional wetland mitigation may be required.

6.4 MAINTENANCE

The planting areas may require periodic maintenance to remove undesirable species and replace vegetation mortality. Maintenance shall occur at least once a year for the 5-year monitoring period in accordance with the approved plan. Maintenance may include, but will not be limited to, removal of competing grasses, irrigation, replacement of plant mortality, and the replacement of mulch for each maintenance period. Mulch should be replenished during each maintenance visit. The contracted landscape professional or property owner is responsible for maintenance during all monitoring years.

Duration and Extent

In order to achieve the aforementioned Performance Standards, the Permittee shall have the

planting area maintained for the duration of the five-year monitoring period. Maintenance will include watering for the first monitoring year and as needed in the following years, weeding around the base of installed plants, pruning, replacement, re-staking, removal of all classes of noxious weeds (see Washington State Noxious Weeds List), and any other measures needed to insure plant survival.

Survival

The Permittee shall be responsible for the health of 100 percent of all newly installed plants for one growing season after installation has been accepted by the City. A growing season for these purposes is defined as occurring from spring to spring (March 15 to March 15 of the following year). For fall installation (often required), the growing season will begin the following spring. The Permittee shall replace any plants that are failing, weak, defective in manner of growth, or dead during this growing season, as directed by the landscape designer, consulting biologist, and/or City staff.

Installation Timing for Replacement Plants

Replacement plants shall be installed between October 1 and March 1, unless otherwise determined by the consulting biologist and/or City staff.

Standards for Replacement Plants

Replacement plants shall meet the same standards for size and type as those specified for the original installation unless otherwise directed by the landscape designer, consulting biologist, and/or City staff.

Replanting

Plants that have settled in their planting pits too deep, too shallow, loose, or crooked shall be replanted as directed by the consulting biologist and/or City staff.

Mulch

All plantings will have mulch reapplied at their bases every year of the monitoring period. Plants shall receive no less than 3 inches of wood chips in the spring of the first two monitoring years. Mulch shall be kept well away (at least 2 inches) from the trunks and stems of woody plants. Mulch may be reapplied after the first 2 years as necessary.

Herbicides/Pesticides

Chemical controls shall not be used in the planting area, sensitive areas, or their buffers. However, limited use of herbicides may be approved depending on site-specific conditions, only if approved by City staff.

Watering

Water should be provided during the dry season (July 1 through September 15) for at least the first year after installation to insure plant survival and establishment. Water should be applied at a rate of one inch of water once per week during Year 1. Water should be provided in subsequent years if required by climactic or site conditions.

7.0 USE OF THIS REPORT

This Critical Area Study and Mitigation Plan has been prepared as a means of determining onsite and nearby critical areas as required by City of Poulsbo during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to environmentally critical areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report, and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.

Shaun Sweeney Associate Ecologist Meryl Kamowski, PWS

Senior Ecologist

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APPENDIX A:

WETLAND DETERMINATION DATA FORMS

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

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo	S	Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	sampling Point: S1
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26N	i, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	Lat: _47°	44'20.52'	"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent :	slopes		NWI classificatio	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes			
Are Vegetation, Soil, or Hydrology signif	•		`	mal Circumstances" present?	? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Rei	
SUMMARY OF FINDINGS – Attach site map					
					-
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No		ls t	he Sampled		_
Wetland Hydrology Present?		with	hin a Wetlar	nd? Yes ✓ No	
Remarks:	ı				
In Wetland A Near WRA12.					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator	Dominance Test worksho	
1. Thuja plicata	40	Y	FAC	Number of Dominant Spec That Are OBL, FACW, or F	
Pseudotsuga menziesii*	15	N	FACU		(, ,
3			· ——	Total Number of Dominant Species Across All Strata:	
4.					
Out well to	55	= Total (Cover	Percent of Dominant Spec That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 3m radius	15	Υ	EAC		· ·
1. Rubus spectabilis	15	-	FAC	Prevalence Index worksh Total % Cover of:	
2				OBL species	
4				FACW species	
5.			· <u></u>	FAC species	x 3 = 0
	15	= Total (Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	10	V	EAC		x 5 = <u>0</u>
Blechnum spicant Athyrium filix-femina	10 10	<u>Y</u> Y	FAC FAC	Column Totals: 0	(A) <u>0</u> (B)
		Y	FACU	Prevalence Index =	B/A =
3. Hedera helix 4	-	-		Hydrophytic Vegetation	
5				Rapid Test for Hydropl	nytic Vegetation
6.				Dominance Test is >50)%
7				Prevalence Index is ≤3	
8					ions ¹ (Provide supporting ron a separate sheet)
9			·	Wetland Non-Vascular	• ,
10			· <u></u>		tic Vegetation ¹ (Explain)
11				1 	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	25	= Total (Cover	be present, unless disturbe	ed or problematic.
1. None	0				
2			· - <u></u>	Hydrophytic Vegetation	
	0	= Total (Cover		∕ No ☐
% Bare Ground in Herb Stratum _75 Remarks:					
	nd A				
* Pseudotsuga menziesii is rooted out of Wetla	nu A.				

Sampling Point: S1

10 10 10 10 10 10 10 10	Depth	Matrix			lox Feature	<u>es</u>	2		
Type: C-Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. **Location: PL=Pore Lining, M=Matrix, Vydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Histosol (A1) Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators (A1) Indicators for Problematic Hydric Soils* Indicators for Problematic Hydric Soils* Indicators (A1) Indicators	(inches)			Color (moist)	%	Type ¹	_Loc ²		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: CSoil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*:									
Histosol (A1)	9-16	10YR 2/1	90	10YR 4/2	10	<u>C</u>	M	Sandy Loam	-
Sandy Mucky Mineral (S1)	Histosol Histic Ep Black Hi Hydroge Depleted	Indicators: (Appli (A1) pipedon (A2) stic (A3) n Sulfide (A4) d Below Dark Surface	cable to al	Sandy Redox Stripped Matrix Loamy Mucky Loamy Gleyed	erwise no (S5) x (S6) Mineral (F I Matrix (F2	ted.) 1) (excep		Indicate 2 cr Rec Ver	ors for Problematic Hydric Soils ³ : m Muck (A10) d Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Sandy Gleyed Matrix (S4)	Thick Da	ark Surface (A12)		Redox Dark Si	urface (F6))			
Restrictive Layer (if present): Type:	= '	• • •		_ `		- 7)			
Type:				Redox Depres	sions (F8)			unle	ss disturbed or problematic.
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) High Water Table (A2) 1, 2, 4A, and 4B) Aquatic Invertebrates (B13) Drainage Patterns (B10) Drainage Patterns (B1	Type:							Hydric Soi	I Present? Yes ✔ No
Surface Water (A1)	Wetland Hy	drology Indicators		ed; check all that ap	ply)			Seco	ondary Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Surface Surface Soil Cracks (B7) Depth (inches): Surface Water Present? Yes No Depth (inches): Surface Surface Wetland Hydrology Present? Yes No Depth (inches): Surface Surface Surface Data (Stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface	Water (A1)	,	☐ Water-Sta	ained Leav	. , .	xcept MLF		Vater-Stained Leaves (B9) (MLRA 1, 2,
Water Marks (B1)	=					3)			
Sediment Deposits (B2)	=	` '			, ,	o (D42)			` ,
Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves V No Depth (inches): Saturation Present? Yes V No Depth (inches): Surface Wetland Hydrology Present? Yes V No Depth (inches): Surface Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		` '							` '
Algal Mat or Crust (B4)	=			= ' '		` '	Living Poo		
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Depth (inches): Surface No Depth (inches): No Depth (inch	= '					_	_		, ,
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Depth (inches): Surface Water Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches):	= -			_		•	,		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):				_			•	_	` ,
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):	_		Imagery (B	_		•	, ,		
Surface Water Present? Yes No Depth (inches):	Sparsely	Vegetated Concav	e Surface (B8)					
Vater Table Present? Yes V No Depth (inches): 1 Wetland Hydrology Present? Yes No No Depth (inches): Surface Wetland Hydrology Present? Yes No No Depth (inches): Surface No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	ield Obser	vations:							
Saturation Present? Yes No Depth (inches): Surface Wetland Hydrology Present? Yes No Society No Depth (inches): Surface Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ' '					
includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ' '					
			Yes 🗾 N	o Depth (inche	es): Suriac	<u>e </u>	Wetl	and Hydrolog	gy Present? Yes[v] No[
Remarks:			m gauge, m	onitoring well, aeria	l photos, p	revious in	spections),	if available:	
	Remarks:								

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

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	Sampling Point: S2
				ownship, Range: S15, T26N	
				, convex, none): None	
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent :	slopes		NWI classification	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes			
Are Vegetation, Soil, or Hydrology signifi	•	_		mal Circumstances" present	? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Re	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes No 🗸					
Hydrophytic Vegetation Present? Yes No V Hydric Soil Present? Yes No V			he Sampled		
Wetland Hydrology Present?		wit	hin a Wetlar	nd? Yes No	<u>v</u>
Remarks:					
Out of Wetland A Near WRA12					
VEGETATION – Use scientific names of plant	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		nt Indicator	Dominance Test worksh	
Pseudotsuga menziesii	30	Y	FACU	Number of Dominant Spec That Are OBL, FACW, or I	
2. Thuja plicata	25	Υ	FAC		
3. Tsuga heterophylla	20	Υ	FACU	Total Number of Dominant Species Across All Strata:	_
4.					(2)
	75	= Total	Cover	Percent of Dominant Spec That Are OBL, FACW, or F	
Sapling/Shrub Stratum (Plot size: 3m radius	_		=		
1. Vaccinium parvifolium	·	<u>Y</u>	FACU	Prevalence Index works	
2				Total % Cover of: OBL species	
3				FACW species	
4. 5.			-	FAC species	
3	5	= Total (Cover	FACU species	
Herb Stratum (Plot size: 1m radius		- rotar		UPL species	_
Polystichum munitum	20	Y	FACU		(A) 0 (B)
2. Hedera helix	5	Y	FACU		
3				Prevalence Index =	
4				Hydrophytic Vegetation Rapid Test for Hydrop	
5				Dominance Test is >50	
6				☐ Prevalence Index is ≤3	
7 8					tions ¹ (Provide supporting
9					r on a separate sheet)
10				Wetland Non-Vascular	
11.				1 	tic Vegetation ¹ (Explain)
	25	= Total	Cover	¹ Indicators of hydric soil ar be present, unless disturbe	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius				be present, unless disturbe	sa of problematic.
1. None	0	-		Hydrophytic	
2				Vegetation	J No
% Bare Ground in Herb Stratum 75	0	= Total	Cover	Present? Yes	_ No ✓
Remarks:				1	

Sampling Point: S2

Depth	Matrix		Redo	ox Feature	<u>es</u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/6	100					Sandy Loam	Dry
6-11	10YR 4/6	100					Sandy Loam	Dry
11-17	10YR 4/4	95	10YR 3/6	5	С	М	Sandy Loam	Dry
Hydric Soil Histosol	Indicators: (Appli (A1)		=Reduced Matrix, C I LRRs, unless othe	rwise no		ed Sand G	Indicato	cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils³: n Muck (A10)
Black Hi	pipedon (A2) istic (A3) en Sulfide (A4)		Stripped Matrix Loamy Mucky M Loamy Gleyed	Mineral (F		t MLRA 1)	Very	Parent Material (TF2) y Shallow Dark Surface (TF12) er (Explain in Remarks)
Deplete	d Below Dark Surfac ark Surface (A12)	ce (A11)	Depleted Matrix Redox Dark Su	(F3)			_	ors of hydrophytic vegetation and
	Mucky Mineral (S1)		Depleted Dark	,	- 7)			and hydrology must be present,
	Bleyed Matrix (S4) Layer (if present):		Redox Depress	sions (F8)			unles	ss disturbed or problematic.
Type:	nches):						Hydric Soil	I Present? Yes No ✔
Remarks:								<u> </u>
IYDROLO)GY							
Wetland Hy	drology Indicators	s:						
Primary Indi	cators (minimum of	one require	ed; check all that app	ly)			Seco	ndary Indicators (2 or more required)
Surface	Water (A1)			ined Leav	es (B9) (e	xcept MLF	RA 🔲 W	/ater-Stained Leaves (B9) (MLRA 1, 2,
High Wa	ater Table (A2)		1, 2, 4	A, and 4E	3)		_	4A, and 4B)
Saturation	` '		Salt Crust	` '				rainage Patterns (B10)
	larks (B1)		Aquatic In				_	ry-Season Water Table (C2)
	nt Deposits (B2)		Hydrogen		` '	Listan Dan		aturation Visible on Aerial Imagery (C9)
=	posits (B3)		Presence	•	_	Living Roo		eomorphic Position (D2)
_	at or Crust (B4) posits (B5)		_		`	+) d Soils (C6		hallow Aquitard (D3) AC-Neutral Test (D5)
	Soil Cracks (B6)		_			1) (LRR A)	_	aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	_		,	., (=:::::,		rost-Heave Hummocks (D7)
_	y Vegetated Concav				,		_	` ,
Field Obse	rvations:		·					
Surface Wa	ter Present?	Yes N	o Depth (inche	s):				
Water Table	Present?		o Depth (inche					
Saturation F		Yes N	o 🔽 Depth (inche	s):		Wetl	and Hydrolog	y Present? Yes No ✓
	pillary fringe) ecorded Data (strear	m gauge, m	onitoring well, aerial	photos, p	revious in	spections),	if available:	
Remarks:								

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

Project/Site: 21199 - Viking Ave NW		City/Cou	nty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA S	Sampling Point: S3
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26N	N, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	Lat: _47°	°44'20.52	2"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent	slopes		NWI classification	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No (I		
Are Vegetation, Soil, or Hydrology signif	•	_		mal Circumstances" present	? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Re	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes ✓ No Yes ✓ No		Is	the Sampled		
Wetland Hydrology Present?		wi	thin a Wetlar	nd? Yes ✓ No	
Remarks:	ı				
In Wetland A Near WRA30					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute		nt Indicator	Dominance Test worksh	
1. Thuja plicata	35	Y	Status FAC	Number of Dominant Sper That Are OBL, FACW, or	
Pseudotsuga menziesii*	15	N	FACU	That Are OBL, FACW, or	(A)
3. Acer macrophyllum*	5	N	FACU	Total Number of Dominan Species Across All Strata:	_
4.					(=)
Ou wall a	55	= Total	Cover	Percent of Dominant Spec That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius	0				
1. None	0			Prevalence Index works Total % Cover of:	
2 3				OBL species	
4				FACW species	
5				FAC species	
	0	= Total	Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	45	V	FA0	UPL species	x 5 = 0
1. Tiarella trifoliata	15	<u>Y</u>		Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index =	B/A =
3 4				Hydrophytic Vegetation	
5				Rapid Test for Hydrop	hytic Vegetation
6.				✓ Dominance Test is >5	0%
7				Prevalence Index is ≤	
8				Morphological Adapta	tions ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascula	' '
10					rtic Vegetation ¹ (Explain)
11	45	-		1 	nd wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	15	= Total	Cover	be present, unless disturb	
1. None	0	· .			
2.		-		Hydrophytic Vegetation _	
	0	= Total	Cover		✓ No 🗌
% Bare Ground in Herb Stratum 85					
Remarks:			-414/11	٨	
Pseudotsuga menziesii and Acer macrophyllur	n are root	ea out (ot vvetland	A.	

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10 YR 2/1	100					Sandy Loam	
	-		-	-				
				_				_
				=				
				_				
	-							
1- 00	5.5						. 21	
			=Reduced Matrix, CS LRRs, unless other			ed Sand Gi		cocation: PL=Pore Lining, M=Matrix.
Histosol		cable to all	_		eu.)		_	•
_	oipedon (A2)		Sandy Redox (S				_	m Muck (A10) d Parent Material (TF2)
Black Hi			Loamy Mucky M	. ,) (except	MLRA 1)	_	ry Shallow Dark Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed M			,		ner (Explain in Remarks)
_ ` `	d Below Dark Surfa	ce (A11)	Depleted Matrix					•
	ark Surface (A12)		Redox Dark Sur				³ Indica	tors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark S	•	7)			land hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressi	ions (F8)			unle	ess disturbed or problematic.
	Layer (if present):							
Type:	-1>							
Deptn (in	ches):						Hydric So	il Present? Yes ✔ No
Remarks:								
Chroma -	1 soils with low	values ar	e indicative of pro	olonged	saturat	ion and i	nundation.	Redoximorphic features can be
masked by	prolonged satu	uration an	d inundation.					
IVDDOLO	-04							
IYDROLO								
-	drology Indicators							
		one require	ed; check all that appl					ondary Indicators (2 or more required)
	Water (A1)		Water-Stai			xcept MLF	RA 📙 \	Water-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)			A, and 4B)				4A, and 4B)
✓ Saturation	on (A3)		Salt Crust	(B11)				Orainage Patterns (B10)
	arks (B1)		Aquatic Inv	ertebrates	s (B13)			Ory-Season Water Table (C2)
_	nt Deposits (B2)		Hydrogen :		` '			Saturation Visible on Aerial Imagery (C9)
=	oosits (B3)		Oxidized R		_	_		Geomorphic Position (D2)
_	at or Crust (B4)		Presence o		,	,		Shallow Aquitard (D3)
	osits (B5)		Recent Iron			•	_	FAC-Neutral Test (D5)
_	Soil Cracks (B6)		Stunted or		•	1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial			lain in Rei	marks)		<u></u>	Frost-Heave Hummocks (D7)
	Vegetated Concav	ve Surface (B8)					
Field Obser		_						
Surface Wat			Depth (inches	,				
Water Table		_	Depth (inches					<u></u>
Saturation P		Yes 🔽 N	Depth (inches	s): Surface	·	Wetl	and Hydrolo	gy Present? Yes 🗸 No 🗌
	pillary fringe) corded Data (streat	m anua m	onitoring well, aerial	nhotos pr	evious in	enections)	if available.	
Describe ive	corded Data (Stream	iii gauge, iii	oriitoring well, aeriai į	priotos, pri	evious iii.	spections),	ii available.	
Dama da								
Remarks:								

Project/Site: 21199 - Viking Ave NW	(City/Cou	nty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: <u>S4</u>
Investigator(s): MK, AR, AH			_ Section, To	ownship, Range: S15, T26	6N, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local re	elief (concave,	, convex, none): None	Slope (%): <u>15</u>
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.5	2"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3				NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	✓ No (li	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	•	_	`	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura	-			d, explain any answers in R	
SUMMARY OF FINDINGS – Attach site map					
		Jampi	mg ponit it		important reatures, etc.
Hydrophytic Vegetation Present? Yes No		Is	the Sampled	l Area	
Hydric Soil Present? Wetland Hydrology Present? Yes No V		wi	ithin a Wetlar	nd? Yes No) ~
Wetland Hydrology Present? Yes No					
Out of Wetland A Near WRA30					
Out of Welland A Near WINASO					
VEGETATION – Use scientific names of plant	ts.				
F P	Absolute		int Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius			s? Status	Number of Dominant Sp	
Pseudotsuga menziesii Acer macrophyllum	<u>50</u> 20	<u>Y</u> Y	FACU FACU	That Are OBL, FACW, or	r FAC: 0 (A)
		-	_ FACU	Total Number of Domina	_
3				Species Across All Strata	a: <u>7</u> (B)
4	70	= Total	Cover	Percent of Dominant Spe	
Sapling/Shrub Stratum (Plot size: 3m radius		= 10(a)	Cover	That Are OBL, FACW, or	r FAC: <u>0</u> (A/B)
1. Ilex aquifoluim	45	Υ	FACU	Prevalence Index work	sheet:
2. Corylus cornuta	40	Y	FACU	Total % Cover of:	Multiply by:
3. Mahonia nervosa	30	Y	FACU	OBL species	
4. Rubus spectabilis	20	N	<u>FAC</u>		x 2 = 0
5. Oemleria cerasiformis	7	N	FACU		x 3 = 0
Herb Stratum (Plot size: 1m radius	142	= Total	Cover	FACU species	
Polystichum munitum	60	Υ	FACU	UPL species	x = 0
2.		-		Column Totals: 0	(A) <u>0</u> (B)
3.				Prevalence Index	= B/A =
4.				Hydrophytic Vegetation	n Indicators:
5				Rapid Test for Hydro	phytic Vegetation
6				Dominance Test is >	50%
7				Prevalence Index is:	
8					ations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	•
10		-	_		nytic Vegetation¹ (Explain)
11				_	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius		= Total	Cover	be present, unless distur	
1	30	Y	FACU		
2.				Hydrophytic Vegetation	
	30	= Total	Cover		☐ No ✓
% Bare Ground in Herb Stratum 40					
Remarks:					

Depth	Matrix			x Features		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-17	10YR 4/4	100					Loamy Sand	Dry	
	-			_				-	
	-							-	
	-								
								-	
Type: C-C	oncentration D-De	nletion PM	=Reduced Matrix, CS	S-Covered	Lor Coate	ad Sand Gr	raine ² Lo	cation: E	PL=Pore Lining, M=Matrix.
•			LRRs, unless other			od Sand Gr			roblematic Hydric Soils ³ :
Histosol			Sandy Redox (S		,			n Muck (·
_	ipedon (A2)		Stripped Matrix				_		Material (TF2)
Black Hi			Loamy Mucky M	lineral (F1)) (except	MLRA 1)	Very	/ Shallow	Dark Surface (TF12)
- ' '	n Sulfide (A4)		Loamy Gleyed N				Othe	er (Expla	in in Remarks)
= '	Below Dark Surface	ce (A11)	Depleted Matrix				2		
=	rk Surface (A12)		Redox Dark Sur	` ,	_,			-	drophytic vegetation and
= '	lucky Mineral (S1)		Depleted Dark S	•	7)				ology must be present,
	leyed Matrix (S4) Layer (if present):		Redox Depressi	ions (F8)			unies	ss distur	ped or problematic.
Type:	Layer (ii present).								
,,	ches):						Hydric Soil	Broson	t? Yes No
emarks:							Hydric Soil	riesen	tr res No
/DROLO	GY								
	drology Indicators	<u> </u>							
-			d; check all that appl	v)			Seco	ndarv Ind	dicators (2 or more required)
_	Water (A1)		_		s (B9) (e	xcept MLR			ined Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			A, and 4B)		Acopt III 211	" Ц"	4A, an	, , ,
Saturation			Salt Crust				Пр		Patterns (B10)
=	arks (B1)		Aquatic Inv	` '	(B13)			Ū	on Water Table (C2)
	t Deposits (B2)		Hydrogen		. ,			-	Visible on Aerial Imagery (C9)
=	osits (B3)		= ′ °		` '	Living Root			nic Position (D2)
= '	t or Crust (B4)		Presence of	•	_	-	· · · —	hallow A	quitard (D3)
= -	osits (B5)		Recent Iro	n Reductio	n in Tille	d Soils (C6)			ral Test (D5)
_	Soil Cracks (B6)		_			1) (LRR A)			it Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	7) Other (Exp	lain in Ren	narks)	, , , ,	F	rost-Hea	ve Hummocks (D7)
Sparsely	Vegetated Concav	e Surface (B8)						
ield Obser	vations:								
Surface Wat	er Present?	Yes N	Depth (inches	s):					
Vater Table	Present?	Yes N	Depth (inches	s):					
Saturation P	resent?		Depth (inches			Wetla	and Hydrolog	y Prese	nt? Yes No ✓
includes ca	oillary fringe)								
Describe Re	corded Data (stream	m gauge, m	onitoring well, aerial	photos, pre	evious ins	spections),	if available:		
Remarks:									
.omarks.									

Project/Site: 21199 - Viking Ave NW		City/Cou	_{unty:} Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: <u>S5</u>
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local r	elief (concave	, convex, none): None	Slope (%): <u>15</u>
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.5	52"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	✓ No (I	If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Nor	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	(If needed	d, explain any answers in R	temarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampl	ling point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes No					
Hydrophytic Vegetation Present? Yes No V Hydric Soil Present? Yes No V			the Sampled		
Wetland Hydrology Present?		w	ithin a Wetlai	nd? Yes No	
Remarks:					
Out of Wetland A Near OHWMA60					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute		ant Indicator	Dominance Test works	heet:
Pseudotsuga menziesii	40	Y	es? Status FACU	Number of Dominant Spe That Are OBL, FACW, or	
2. Tsuga heterophylla	20	Y	FACU	That Are OBL, FACW, O	(A)
3. Thuja plicata	10	N	FAC	Total Number of Domina Species Across All Strata	_
4.					(=/
	70	= Tota	l Cover	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius					
1. Vaccinium parvifolium	15	<u>Y</u>	FACU	Prevalence Index work	
2. Rubus spectabilis	10	Y	FAC	Total % Cover of:	
3				OBL species	
4					x = 0
5	25			FAC species	x 3 = 0
Herb Stratum (Plot size: 1m radius	23	= Tota	ll Cover	UPL species	
1. Polystichum munitum	10	Υ	FACU	Column Totals: 0	
2. Rubus ursinus	5	Υ	FACU	Column Totals.	(A) <u>-</u> (B)
3				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	
6				Dominance Test is >	
7				Prevalence Index is:	
8					rations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	•
10					nytic Vegetation ¹ (Explain)
11	4 =			¹ Indicators of hydric soil	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	13	= Tota	il Cover	be present, unless distur	bed or problematic.
1. None	0				
2				Hydrophytic Vegetation	
	0	= Tota	l Cover		□ No ✓
% Bare Ground in Herb Stratum 85					
Remarks:					

Depth	Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	% T	Type ¹ L		Texture		Remarks
0-16	10YR 4/6	100					Sandy Loam	Dry	
	-							-	
								-	
	-								
				= . <u></u>					
	oncontration D_Da	nlotion DM	1=Reduced Matrix, C	S_Covered a	r Coatad 9	Sand Cra	ino ² l oc	notion: D	L=Pore Lining, M=Matrix.
•			I LRRs, unless othe			Sanu Gra			roblematic Hydric Soils ³ :
Histosol			Sandy Redox (S		•,			Muck (A	· ·
_	oipedon (A2)		Stripped Matrix				_	•	Material (TF2)
Black Hi			Loamy Mucky M		except MI	LRA 1)			Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy Gleyed		-		Othe	er (Explai	n in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix	(F3)					
=	ark Surface (A12)		Redox Dark Sui	` ,				-	Irophytic vegetation and
	lucky Mineral (S1)		Depleted Dark S	, ,					logy must be present,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)		-	unles	s disturb	ed or problematic.
Type:	Layer (if present):								
,,	ches):							_	
Deptii (iii							Hydric Soil	Present	? Yes No ✔
/DROLO)GY								
	OGY drology Indicators	s:							
Vetland Hy	drology Indicators		ed; check all that appl	y)			Secor	ndary Inc	licators (2 or more required)
Vetland Hy	drology Indicators		_		(B9) (exc e	ept MLRA			licators (2 or more required)
/etland Hy rimary Indi	drology Indicators		☐ Water-Stai	ly) ned Leaves (A, and 4B)	(B9) (exce	ept MLRA		ater-Stai	ned Leaves (B9) (MLRA 1, 2,
/etland Hy rimary Indi	drology Indicators cators (minimum of Water (A1) ater Table (A2)		☐ Water-Stai	ned Leaves (A, and 4B)	(B9) (exce	ept MLRA	w w	ater-Stai	ned Leaves (B9) (MLRA 1, 2,
/etland Hy rimary Indi Surface High Wa Saturatio	drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-Stai 1, 2, 4/ Salt Crust	ned Leaves (A, and 4B)		ept MLR <i>A</i>		ater-Stai 4A, an rainage F	ned Leaves (B9) (MLRA 1, 2, d 4B)
rimary Indi Surface High Wa Saturatio	cators (minimum of Water (A1) uter Table (A2) on (A3)		Water-Stai 1, 2, 4,4 Salt Crust Aquatic Inv	ned Leaves (A, and 4B) (B11)	B13)	ept MLRA	W	'ater-Stai 4A, an rainage F ry-Seaso	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10)
rimary Indi Surface High Wa Saturatio Water M	cators (minimum of Water (A1) ster Table (A2) on (A3) larks (B1)		Water-Stai 1, 2, 4, Salt Crust Aquatic Inv	ned Leaves (A, and 4B) (B11) vertebrates (E	B13) (C1)		W Di	ater-Stair 4A, an rainage Fry-Seaso aturation	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2)
Vetland Hy Irimary India Surface High Wa Saturatio Water M Sedimer Drift Dep	cators (minimum of Water (A1) heter Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Stai 1, 2, 4, Salt Crust Aquatic Inv Hydrogen Oxidized R	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor	B13) (C1) along Livi		W Di Di Sa (C3) G G	ater-Stai 4A, an rainage F ry-Seaso aturation eomorph	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9
rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres	B13) (C1) along Livi ron (C4)	ing Roots	W Di Di Di Si Si Gi Gi Si Si Si S	rater-Stainage Fry-Seaso aturation eomorph	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2)
Vetland Hy rimary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	cators (minimum of Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir	B13) (C1) along Livi ron (C4) in Tilled So	ing Roots	Di Di Di Di Di Di Di Di	ater-Stainage Fainage	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3)
Vetland Hy rimary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced In	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) In Test (D5)
Vetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) ther Table (A2) on (A3) larks (B1) on Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla	B13) (C1) along Livi ron (C4) in Tilled Se ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	drology Indicators cators (minimum of Water (A1) atter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial at Vegetated Concavervations:	one require	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (ESulfide Odor Rhizospheres of Reduced In Reduction i Stressed Plablain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: ater Present?	Imagery (B	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced In n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (urks)	ing Roots	Di Di Di Si Si Si Si Si	dater-Stain 4A, an rainage Fry-Seaso aturation eomorph allow Ac-Neutraised An	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: ter Present?	Imagery (B	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp	ned Leaves (A, and 4B) (B11) /ertebrates (E Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla blain in Rema	B13) (C1) along Livi ron (C4) in Tilled So ants (D1) (ing Roots oils (C6) LRR A)	W Di Di Si Si Si Si Si Si	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) n Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) ral Test (D5) t Mounds (D6) (LRR A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Penincludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp (B8)	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Vetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Vater Table Saturation P Includes ca Describe Re	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)
Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table Seaturation Pencludes ca	cators (minimum of Water (A1) water Table (A2) on (A3) larks (B1) on Deposits (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concaverations: water Present? Present?	Imagery (B ve Surface (Yes N Yes N	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iro Stunted or Other (Exp B8) Depth (inches Depth (inches	ned Leaves (A, and 4B) (B11) vertebrates (E) Sulfide Odor Rhizospheres of Reduced Ir n Reduction i Stressed Pla olain in Rema	B13) (C1) along Livi ron (C4) in Tilled Seants (D1) (irks)	ing Roots oils (C6) LRR A) Wetlan	C3) GG SF FF	rater-Stai 4A, an rainage F ry-Seaso aturation eomorph nallow Ac AC-Neutr aised An rost-Heav	ned Leaves (B9) (MLRA 1, 2, d 4B) Patterns (B10) In Water Table (C2) Visible on Aerial Imagery (C9 ic Position (D2) quitard (D3) Ital Test (D5) It Mounds (D6) (LRR A) Ive Hummocks (D7)

Project/Site: 21199 - Viking Ave NW	(City/Co	ounty	: Poulsbo		Sampling	Date: 02/15	5/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling	J Point: S6	
Investigator(s): MK, AR, AH				Section, To	ownship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local	relie	f (concave,	convex, none): None		Slope (%)): <u>2</u>
Subregion (LRR): LRR-A	_ Lat: <u>47</u> °	44'20.	52"N	١	Long: 122°39'53.22"W		Datum: W	GS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 0	to 8 percen	t slope	es		NWI classificat	ion: Nor	те	
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	s 🗸	No (li	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	bed?		Are "Norr	mal Circumstances" preser	ıt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natura	lly problema	tic?		(If needed	I, explain any answers in R	emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samp	oling	g point le	ocations, transects,	importa	ant feature	es, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V				e Sampled				
Wetland Hydrology Present? Yes V No		'	withi	in a Wetlar	nd? Yes No) 🔽		
Remarks:		•						
Upland, West of Wetland C								
VEGETATION – Use scientific names of plant	ts.							
		Domir	nant	Indicator	Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius	% Cover				Number of Dominant Spe		0	
1. None					That Are OBL, FACW, or	r FAC:	2	(A)
2					Total Number of Domina		2	(D)
4					Species Across All Strata	_	<u></u>	(B)
	0	= Tot		over	Percent of Dominant Spe That Are OBL, FACW, or		100	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. Rubus armeniacus	30	Υ		FAC	Prevalence Index work			
Nubus affierlacus 2				1710	Total % Cover of:		Multiply by:	
3					OBL species			
4					FACW species			_
5					FAC species			_
Herb Stratum (Plot size: 1m radius	30	= Tot	al Co	over	FACU species			_
1. Agrostis Sp.	90	Υ		FAC*	UPL species Column Totals: 0			(D)
2. Ranunculus repens	10	N		FAC	Column rotals.	(A)	<u> </u>	(B)
3					Prevalence Index			
4					Hydrophytic Vegetation			
5					Rapid Test for Hydro Dominance Test is >		getation	
6					Prevalence Index is:			
7 8					Morphological Adapt		rovide suppor	rting
9					data in Remarks	or on a se		
10					Wetland Non-Vascul		1 /E L.	
11					Problematic Hydroph Indicators of hydric soil		, ,	
Woody Vine Stratum (Plot size: 1m radius	100	= Tot	al Co	over	be present, unless distur			must
1. None	0							
2					Hydrophytic Vegetation			
% Rara Ground in Harb Stratum 0	0	= Tot	al Co	over		✓ No		
% Bare Ground in Herb Stratum 0 Remarks:								
*Agrostis species are conservatively listed as "l	- acultative	e"						

Depth	Matrix			ox Feature	<u>es</u>	2		
(inches) 0-9	Color (moist) 10YR 3/3	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Sandy Loam	<u>Remarks</u>
9-17	7.5YR 4/4	90	5YR 4/6	10	С	M	Sandy Loam	
Type: C=C Iydric Soil Histosol Histic Ep Black His Hydroge Depleted Thick Da	oncentration, D=De Indicators: (Appli (A1) ipedon (A2)	pletion, RM	=Reduced Matrix, C LRRs, unless othe Sandy Redox (Stripped Matrix Loamy Mucky I Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark	S=Covere erwise no S5) ((S6) Mineral (F Matrix (F2 x (F3) urface (F6)	ed or Coated.)	ed Sand G	Indicate 2 cr Red Ven Oth	cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ : In Muck (A10) I Parent Material (TF2) I Shallow Dark Surface (TF12) or (Explain in Remarks) ors of hydrophytic vegetation and and hydrology must be present,
= '	leyed Matrix (S4)		Redox Depress		. /			ss disturbed or problematic.
Remarks:	ches):						Hydric Soi	I Present? Yes No ✔
YDROLO	GY drology Indicators	::						
-			ed; check all that app	oly)			Seco	endary Indicators (2 or more required)
High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav		1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) evertebrate Sulfide O Rhizosphe of Reduction Reduction	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A	ots (C3)	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Staturation Visible on Aerial Imagery (C9) Seomorphic Position (D2) Shallow Aquitard (D3) AC-Neutral Test (D5) Staised Ant Mounds (D6) (LRR A) Trost-Heave Hummocks (D7)
	er Present? Present? resent? pillary fringe)	Yes N Yes N	Depth (inche Depth (inche Depth (inche Depth (inche	es): es): _9				gy Present? Yes☑ No☐
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty	: Poulsbo		Samplin	g Date: 02/1	5/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Samplin	g Point: S7	
Investigator(s): MK, AR, AH				Section, To	ownship, Range: S15, T2	6N, R1E		
					, convex, none): None			6): <u>2</u>
Subregion (LRR): LRR-A	Lat: 47	°44'20	.52"N	٧	Long: 122°39'53.22"W	V	Datum: _ W	VGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 0	to 8 percer	t slope	es		NWI classifica	ation: No	ne	
Are climatic / hydrologic conditions on the site typical for thi	s time of yea	ar? Ye	s	- —				
Are Vegetation, Soil, or Hydrology signi					mal Circumstances" prese	-	✓ No	
Are Vegetation , Soil , or Hydrology natura					d, explain any answers in I	-		
SUMMARY OF FINDINGS – Attach site map			pling	·		·		es, etc.
	<u>_</u> 1				·	<u> </u>		
Hydrophytic Vegetation Present? Hydric Soil Present? Yes V No V	-		ls th	e Sampled				
Wetland Hydrology Present?	1		withi	in a Wetlar	nd? YesN	10 🖍		
Remarks:	•							
Upland, West of Wetland C								
VEGETATION – Use scientific names of plan	ıts.							
- Company Emradius	Absolute			Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Spec	ies?	Status	Number of Dominant Sp That Are OBL, FACW, of		3	(A)
2.					Total Number of Domina			-
3					Species Across All Stra		3	_ (B)
4		. <u> </u>			Percent of Dominant Sp	necies		
Sapling/Shrub Stratum (Plot size: 3m radius	0	= To	tal Co	over	That Are OBL, FACW, of		100	(A/B)
1. Rubus armeniacus	30	Υ		FAC	Prevalence Index worl	ksheet:		
2					Total % Cover of:		Multiply by:	
3.					OBL species	x 1	1 = 0	
4					FACW species			
5.					FAC species			
Herb Stratum (Plot size: 1m radius	30	= To	tal Co	over	FACU species			
1. Agrostis Sp.	50	Υ		FAC*	UPL species			(D)
2. Juncus effusus	20	Υ		FACW	Column Totals: 0	(A)	0	(B)
3. Ranunculus repens	15	N		FAC	Prevalence Index	= B/A =		
4					Hydrophytic Vegetation			
5		· ——			Rapid Test for Hydr		egetation	
6					Dominance Test is:			
7					Prevalence Index is Morphological Adap		Orovido aupo	ortina
8					data in Remarks	or on a s	eparate shee	it)
9 10					Wetland Non-Vascu	ılar Plants	1	
11.					Problematic Hydrop	hytic Vege	etation ¹ (Expl	ain)
	85	= To	tal Co	over	¹ Indicators of hydric soil be present, unless distu			/ must
Woody Vine Stratum (Plot size: 1m radius	_	-			be present, unless dista	- Ibca or pr	TODICITIALIC.	
1. None	0				Hydrophytic			
2			4-1-0		Vegetation	s No		
% Bare Ground in Herb Stratum 15	0	= To	tal Co	over	riesenti 1es	.⊾ NO	Ш	
Remarks:					1			
*Agrostis species is conservatively listed as "F	acultative	"						

0-6 10YR 3/1 100 Sandy Loam	Depth	Matrix			x Features				
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered Matrix, CS=Cover	(inches)	· · · · · · · · · · · · · · · · · · ·		Color (moist)	%	Type ¹	Loc ²		<u>Remarks</u>
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	0-6	10YR 3/1	100		_			Sandy Loam	
Histosol (A1)	6-17	10YR 3/3	100					Sandy Loam	
Histosol (A1)									
Histosol (A1)									
Histosol (A1)						. ———			
Histosol (A1)					=				
Histosol (A1)		-		=	-				-
Histosol (A1)					_				
Histosol (A1)		-		-	_	-			
Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Red Parent Material (TF2) Red Parent Material (TF2) Sandy Redox (A2) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Other (Expl	•						ed Sand G		
Histic Epipedon (A2) Stripped Matrix (S6) Qear Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) Qvery Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Redox Depressions (F8) Redox Dark Surface (F7) Redox Dark Surface (F8) Redox Dark			cable to al			ed.)			•
Black Histic (A3)	_	, ,						_	* *
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Dark Surface (F6) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F7) Redox Dark Surface (F8) Redox Depresents Type: Depth (inches): Type: Depth (inches): Bernarks: YPROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) Satur Crust (B11) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Saturation Visible on Aerial Imagery (C1) Iron Deposits (B3) Presence of Reduced fron (C4) Iron Deposits (B3) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): 16 Depositible Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ::	. ,) (ovcont	MI DA 1		, ,
Depleted Below Dark Surface (A11)	_			_			WILIXA I)		, , ,
Thick Dark Surface (A12)	_ ` `		ce (A11)	_					(Explain in Comaine)
Sandy Gleyed Matrix (S4)			, ,	_ ·				³ Indicato	ors of hydrophytic vegetation and
Restrictive Layer (if present): Type: Depth (inches): Remarks: Hydric Soil Present? Yes No	_ ·	• , ,		Depleted Dark S	Surface (F	7)			
Type:				Redox Depress	ions (F8)			unles	s disturbed or problematic.
Pepth (inches):									
VPROLOGY Vetland Hydrology Indicators: Vrimary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except MLRA High Water Table (A2) Saturation (A3) Satt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Drift Deposits (B2) Hydrogen Sulfide Odor (C1) Dry Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C1) Water Stained Leaves (B9) (MLRA 1, 2) 4A, and 4B) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C1) Drift Deposits (B3) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C1) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C1) Saturation Visible on Aerial Imagery (C1) Saturation Visible on Aerial Imagery (C2) Saturation (C3) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Depth (inches): Saturation Present? Ves No Depth (inches): Water Table Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Depth (inches): 3 Wetland Hydrology Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Depth (inches): 3 Wetland Hydrology Present? Yes No Depth (inches): 3 Wetland Hydrology Present? Yes No Depth (inches): 3 Wetland Hydrology Present? Yes No Depth (inches): 4 Wetland Hydrology Present? Yes No	,,								
Verland Hydrology Indicators: Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required)	Deptil (ili	cnes)						Hydric Soil	Present? Yes No
Secondary Indicators (2 or more required) Surface Water (A1)	YDROLO	GY							
Surface Water (A1)	Vetland Hy	drology Indicators	5 :						
High Water Table (A2) Saturation (A3)	Primary Indi	cators (minimum of	one require	ed; check all that appl	y)			Secor	ndary Indicators (2 or more required)
Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Water Table Present? Yes No Depth (inches): Moreover a position (D2) Saturation Present? Yes No Depth (inches): Moreover a position (D2) Wetland Hydrology Present? Yes No Depth (inches): Moreover approximately fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface	Water (A1)			ned Leave	es (B9) (e	xcept MLF	RA 🔲 W	
Water Marks (B1)	= ~	, ,)		_	
Sediment Deposits (B2)		, ,			. ,			=	• ,
Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Ves V No Depth (inches): Surface Water Table Present? Ves V No Depth (inches): Surface Water Present? Ves V No Dept	_					` ,		=	` '
Algal Mat or Crust (B4)	_					` '			
Iron Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches): Depth (inches): Seturation Present? Yes No Depth (inches): Depth (inches): Seturation Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	= '	, ,				-	•		. ,
Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Seturation Present? Yes No Depth (inches):	= -			_		,	,		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) iteld Observations: Surface Water Present? Yes No Depth (inches): Vater Table Present? Yes No Depth (inches): 16 Staturation Present? Yes No Depth (inches): 2 Metland Hydrology Present? Yes No Depth (inches): 2 Metland Hydrology Present? Yes No Depth (inches): 2 Metland Hydrology Present? Yes No Depth (inches): 4 Metland Hydrology Present? Yes No Depth (inches):				_			,	′ =	,
Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No Depth (inches):	=		Imagery (R				i) (ENK A)		
Saurface Water Present? Yes No Depth (inches):				· —		nanto)		Ш	ost ricave traininosko (<i>D1</i>)
Surface Water Present? Yes No Depth (inches):			- Curiaco (
Vater Table Present? Yes V No Depth (inches): 16 Saturation Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Secribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			Yes□ N	Depth (inches	s):				
Saturation Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				=					
includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				= ' '			Wetl	and Hydrolog	v Present? Yes No
	includes ca	oillary fringe)			,				,
Remarks:	Describe Re	corded Data (stream	m gauge, m	onitoring well, aerial	photos, pr	evious ins	spections),	if available:	
	Remarks:								

Project/Site: 21199 - Viking Ave NW	(City/Co	ounty: Pou	ulsbo		Sampling !	Date: 02/15	/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling i	Point: S8	
Investigator(s): MK, AR, AH			Section	on, Tov	wnship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local	relief (con	ncave,	convex, none): None		_ Slope (%)	: 2
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.	52"N		Long: 122°39'53.22"W		Datum: W	GS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent slo	pes			NWI classificat	tion: None	e	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	s No					
Are Vegetation, Soil, or Hydrology signifi					nal Circumstances" preser	nt? Yes	∕ No □	
Are Vegetation , Soil , or Hydrology natura					explain any answers in R	_		
SUMMARY OF FINDINGS – Attach site map							nt feature	es, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes No Yes			s the San	-				
Wetland Hydrology Present? Yes ✓ No		١	within a V	Vetland	d? Yes No			
Remarks:		t						
Upland, west of Wetland C								
VEGETATION – Use scientific names of plan	ts.							
T. O	Absolute				Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Speci	ies? Sta	tus	Number of Dominant Spe That Are OBL, FACW, or			(A)
2.								(71)
3.					Total Number of Domina Species Across All Strata			(B)
4								()
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Tot	al Cover		Percent of Dominant Spe That Are OBL, FACW, or		00	(A/B)
1. None	0			_	Prevalence Index work	sheet:		
2.					Total % Cover of:	<u> </u>	/lultiply by:	
3					OBL species	x 1 =	_ 0	_
4					FACW species			_
5						x 3 =		_
Herb Stratum (Plot size: 1m radius	0	= Tot	al Cover		FACU species			
1. Agrostis Sp.	95	Υ	*FA	С			= <u>0</u> 0	
2. Prunella vulgaris	15	N			Column Totals	(A)		(B)
3. Ranunculus repens	10	N			Prevalence Index	= B/A =		
4. Juncus effusus	10	N			Hydrophytic Vegetation			
5					Rapid Test for Hydro		etation	
6					Dominance Test is >			
7					Prevalence Index is: Morphological Adapt		ovido ouppor	tina
8					data in Remarks	or on a ser	parate sheet))
9 10					Wetland Non-Vascul	ar Plants ¹		
11.					Problematic Hydroph	ıytic Vegeta	ation¹ (Expla	in)
	130		al Cover		¹ Indicators of hydric soil be present, unless distur			must
Woody Vine Stratum (Plot size: 1m radius				-	be present, unless distar	——————————————————————————————————————	Jierriano.	
1. None	0				Hydrophytic			
2					Vegetation		٦	
% Bare Ground in Herb Stratum 0	0	= Iot	al Cover		Present? Yes	✓ No	_	
Remarks:				<u> </u>				
Agrostis Species is conservatively listed as "Fa	cultative"							

Depth	Matrix		Redo	x Feature				
(inches)	Color (moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-12	10YR 3/2	100						
12-16	10YR 4/6	100						
					-			
			-					
			-	_				· -
	-							
Tuno: C-C	oncentration D_De	nlotion DM	=Reduced Matrix, C	S-Covered	d or Coate	ad Sand Ci	roino ² L	ocation: PL=Pore Lining, M=Matrix.
•			LRRs, unless othe			eu Sanu Gi		cors for Problematic Hydric Soils ³ :
Histosol		ouble to un	Sandy Redox (S		ou.,			m Muck (A10)
_	oipedon (A2)		Stripped Matrix				_	d Parent Material (TF2)
	stic (A3)		Loamy Mucky N	. ,) (except	MLRA 1)		ry Shallow Dark Surface (TF12)
] Hydroge	en Sulfide (A4)		Loamy Gleyed I			•	Oth	ner (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix				_	
=	ark Surface (A12)		Redox Dark Su	` ,				tors of hydrophytic vegetation and
	flucky Mineral (S1)		Depleted Dark S	,	7)			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)			unle	ess disturbed or problematic.
Type:	Layer (if present):							
,,	iches):						l ₋	
Бериі (іі							Hydric So	il Present? Yes No
YDROLO)GY							
Vetland Hy	drology Indicators	3 :						
Primary Indi	cators (minimum of	one require	ed; check all that appl	ly)			Seco	ondary Indicators (2 or more required)
_	Water (A1)		_		es (B9) (e	xcept MLR	RA 🗆	Water-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)			A, and 4B				4A, and 4B)
Saturation			Salt Crust		,			Drainage Patterns (B10)
	larks (B1)		Aquatic Inv	` '	s (B13)			Dry-Season Water Table (C2)
_	nt Deposits (B2)		Hydrogen	Sulfide Od	dor (C1)			Saturation Visible on Aerial Imagery (C9)
_	posits (B3)		Oxidized R	Rhizospher	res along	Living Roo		Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4	1)		Shallow Aquitard (D3)
_	oosits (B5)		Recent Iro	n Reductio	on in Tille	d Soils (C6		FAC-Neutral Test (D5)
_	Soil Cracks (B6)		Stunted or	Stressed	Plants (D	1) (LRR A)	F	Raised Ant Mounds (D6) (LRR A)
Inundati	on Visible on Aerial	Imagery (B	7) Dther (Exp	olain in Rei	marks)		☐ F	Frost-Heave Hummocks (D7)
Sparsely	Vegetated Concav	e Surface (B8)					
ield Obse	rvations:							
Surface Wa	ter Present?	Yes N	Depth (inches	s):				
Vater Table	Present?	Yes 🔽 N	Depth (inches	s): <u>12</u>				
Saturation F			Depth (inches			Wetl	and Hydrolo	gy Present? Yes 🗸 No
includes ca	pillary fringe)			,				– –
Jescribe Re	ecorded Data (strear	m gauge, m	onitoring well, aerial	photos, pr	evious ins	spections),	ıt available:	
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Count	ty: Poulsbo		Sampling Date: 02/15/2	22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S9	
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E	
				, convex, none): None		2
Subregion (LRR): LRR-A	Lat: 47°	44'20.52'	'N	Long: 122°39'53.22"W	Datum: WG	3S84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent slo	pes		NWI classifica		
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	7 No (I			
Are Vegetation, Soil, or Hydrology signif	•		`	mal Circumstances" presei	nt? Yes 🗸 No	
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in F		
SUMMARY OF FINDINGS – Attach site map						s, etc.
Hydrophytic Vegetation Present?						
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V Yes No V			he Sampled			
Wetland Hydrology Present?		with	nin a Wetlar	nd? Yes N		
Remarks:						
Upland, southwest of Wetland B						
VEGETATION – Use scientific names of plan	ts.					
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator	Dominance Test works		
Pseudotsuga menziesii	60	Y	FACU	Number of Dominant Sp That Are OBL, FACW, o		(A)
2. Thuja plicata	20	Υ	FAC			(71)
3. Tsuga heterophylla	10	N	FACU	Total Number of Domina Species Across All Strat		(B)
4.						(-)
	90	= Total C	Cover	Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius	0.5	V	EAGU			(, , _)
1. Mahonia nervosa 2. Gaultheria shallon	35 15	<u>Y</u>	FACU FACU	Prevalence Index work		
			FACU	OBL species	Multiply by:	
3				FACW species		-
4. 5.				FAC species		_
3.	50	= Total C	Cover	FACU species		=
Herb Stratum (Plot size: 1m radius		_ rotar c	50101		x 5 = 0	-
1				_	(A) 0	(B)
2					- /-	
3					= B/A =	
4				Hydrophytic Vegetatio Rapid Test for Hydro		
5				Dominance Test is >	-	
6				Prevalence Index is		
7 8					tations ¹ (Provide support	ina
9.					or on a separate sheet)	J
10				Wetland Non-Vascu		
11.				1 	nytic Vegetation ¹ (Explain	,
	0	= Total C	Cover	'Indicators of hydric soil be present, unless distur	and wetland hydrology n	nust
Woody Vine Stratum (Plot size: 1m radius	0			Do processi, assess assess		
1. None	0			Hydrophytic		
2				Vegetation	No 🗸	
% Bare Ground in Herb Stratum 100	0	= Total (Jover	Present? Yes	☐ MO[♠]	
Remarks:				ı		
Agrostis species is conservatively listed as "Fa	cultative"					

Depth	Matrix			x Features		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-16	10YR 4/4	100	=				Sandy Loam	Dry	
 -				-					
				=					
				-			-	-	
								-	
	-		=						
Гуре: С=С	oncentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covered	or Coate	ed Sand Gr	ains. ² Lo	cation: F	PL=Pore Lining, M=Matrix.
•			LRRs, unless other						roblematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S	S5)			2 cn	n Muck (A10)
_	ipedon (A2)		Stripped Matrix	. ,					Material (TF2)
Black Hi			Loamy Mucky M		(except	MLRA 1)			Dark Surface (TF12)
_ ` `	n Sulfide (A4)	(0.4.4)	Loamy Gleyed N				Othe	er (Expla	in in Remarks)
	l Below Dark Surfac irk Surface (A12)	ce (A11)	Depleted Matrix Redox Dark Sur	. ,			3Indicate	ore of by	drophytic vegetation and
=	lucky Mineral (S1)		Depleted Dark S	` ,	7)			-	plogy must be present,
= '	leyed Matrix (S4)		Redox Depressi	,	,				ped or problematic.
	Layer (if present):		<u> </u>						·
Type:									
Depth (in	ches):						Hydric Soil	Presen	t? Yes No ✔
emarks:							1		
YDROLO	GY								
-	drology Indicators								
rimary Indi	cators (minimum of	one require	d; check all that appl	y)			Seco	ndary Ind	dicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	s (B9) (e	xcept MLR	RA 🔲 W		ined Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		1, 2, 4	A, and 4B)				4A, an	d 4B)
Saturation	on (A3)		Salt Crust	(B11)			□□□	rainage l	Patterns (B10)
Water M	arks (B1)		Aquatic Inv	ertebrates/	(B13)		□ Þ	ry-Seaso	on Water Table (C2)
Sedimer	t Deposits (B2)		Hydrogen :	Sulfide Ode	or (C1)		∐ s	aturation	Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidized R	hizosphere	es along	Living Roo	ts (C3) 📙 G	eomorph	nic Position (D2)
Algal Ma	t or Crust (B4)		Presence of	of Reduced	I Iron (C∠	!)	∐ s	hallow A	quitard (D3)
_	osits (B5)		Recent Iron			` '			ral Test (D5)
_	Soil Cracks (B6)		Stunted or		,	1) (LRR A)			t Mounds (D6) (LRR A)
=	on Visible on Aerial		· —	lain in Ren	narks)		L F	rost-Hea	ve Hummocks (D7)
	Vegetated Concav	e Surface (B8)						
ield Obser	vations:	_	_						
Surface Wat	er Present?	Yes No	Depth (inches	s):					
Vater Table	Present?		Depth (inches	s):					
Saturation P		Yes No	Depth (inches	s):		Wetla	and Hydrolog	y Prese	nt? Yes No
	oillary fringe) corded Data (strea	m dalide m	onitoring well, aerial	nhotos pro	vioue in	enections)	if available.		
rescribe Re	corueu Data (Sireal	ıı yauye, III	ormornig well, aerlal	priotos, pre	vious ifit	ppecii0115),	ıı avallabl e .		
Domosile:									
Remarks:									

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/15/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S10
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26I	N, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent slo	pes		NWI classificati	on: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	No (I	If no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signif	icantly distu	rbed?	Are "Nor	mal Circumstances" present	t? Yes ✔ No
Are Vegetation, Soil, or Hydrology natura	ally problema	atic?	(If needed	d, explain any answers in Re	emarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampliı	ng point l	ocations, transects, i	important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No					
Hydric Soil Present?			he Sampled		
Wetland Hydrology Present? Yes V No		Witi	hin a Wetlar	nd? Yes No	
Remarks:		•			
Out of Wetland C					
VEGETATION . He are in all a second of all a	4 -				
VEGETATION – Use scientific names of plan				I Dani'a ara Tarkarahat	
Tree Stratum (Plot size: 5m radius	Absolute % Cover		nt Indicator ? Status	Dominance Test worksh	
1. Thuja plicata	5	Y	FAC	Number of Dominant Spe That Are OBL, FACW, or	
2. Pseudotsuga menziesii	5	Υ	FACU	Total Number of Dominar	
3				Species Across All Strata	
4				Percent of Dominant Spe	cies
Sapling/Shrub Stratum (Plot size: 3m radius	10	= Total (Cover	That Are OBL, FACW, or	
1. None	0			Prevalence Index works	sheet:
2				Total % Cover of:	
3.				OBL species	
4.				FACW species	
5				FAC species	x 3 = <u>0</u>
1 1 m radius	0	= Total (Cover	FACU species	
Herb Stratum (Plot size: 1m radius 1. Agrostis Sp.	95	Υ	FAC*	_	x 5 = 0
2 Ranunculus repens	20	N	FAC	Column Totals: 0	(A) <u>0</u> (B)
3. Rubus ursinus	20	N	FACU	Prevalence Index =	= B/A =
4			-	Hydrophytic Vegetation	
5				Rapid Test for Hydron	hytic Vegetation
6				Dominance Test is >5	50%
7				Prevalence Index is ≤	
8					ations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascula	' '
10			· ——		ytic Vegetation ¹ (Explain)
11	405			1 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	135	= Total (Cover	be present, unless disturb	
1. None	0				
2.				Hydrophytic Vegetation	
	0	= Total (Cover		✓ No 🗌
% Bare Ground in Herb Stratum 100					
Remarks:					

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/2	100					Sandy Loam	
7-17	10YR 3/4	100					Sandy Loam	
	-			_				
				-				
			-	-				
								
			=Reduced Matrix, CS			ed Sand Gr		ation: PL=Pore Lining, M=Matrix.
		cable to all	LRRs, unless other	rwise note	ed.)		Indicator	rs for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S				_	Muck (A10)
	pipedon (A2)		Stripped Matrix	. ,	\	MI DA 4\		Parent Material (TF2) Shallow Dark Surface (TF12)
Black Hi	n Sulfide (A4)		Loamy Mucky M Loamy Gleyed N			(WILKA 1)	`	r (Explain in Remarks)
_ ` `	d Below Dark Surfac	ce (A11)	Depleted Matrix		•			(Explain in Nomano)
	ark Surface (A12)	,	Redox Dark Sur	. ,			³ Indicato	rs of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F	7)			nd hydrology must be present,
	leyed Matrix (S4)		Redox Depress	ions (F8)			unless	s disturbed or problematic.
	Layer (if present):							
Type:	ches):							
Deptil (iii	cnes)						Hydric Soil	Present? Yes No
Remarks:								
YDROLO	GY							
Wetland Hy	drology Indicators	s:						
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			<u>Secon</u>	dary Indicators (2 or more required)
Surface	Water (A1)		Water-Stai	ned Leave	es (B9) (e	xcept MLR	RA 🔲 Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
✓ High Wa	ter Table (A2)		_	A, and 4B))			4A, and 4B)
✓ Saturation	on (A3)		Salt Crust	(B11)			☐ Dra	ainage Patterns (B10)
_	arks (B1)		Aquatic Inv	ertebrates	s (B13)		=	y-Season Water Table (C2)
_	nt Deposits (B2)		Hydrogen :		` '			turation Visible on Aerial Imagery (C9)
= '	oosits (B3)		Oxidized R		_	_		eomorphic Position (D2)
_	it or Crust (B4)		Presence o		,	,		allow Aquitard (D3)
	osits (B5)		Recent Iron			,	′ =	C-Neutral Test (D5)
_	Soil Cracks (B6)		Stunted or			1) (LRR A)	_	uised Ant Mounds (D6) (LRR A)
=	on Visible on Aerial		· — · ·	nain in Rei	marks)		☐ Fro	ost-Heave Hummocks (D7)
ield Obser	Vegetated Concav	re Surface (D0)			<u> </u>		
		Vaa 🗆 N	Depth (inches	٠١.				
			= ' '	,				
Water Table		_	Depth (inches			384-41		. P
Saturation P includes ca	resent? pillary fringe)	Yes 🗸 N	Depth (inches	s): <u> </u>		weti	and Hydrology	Present? Yes 🗸 No
		m gauge, m	onitoring well, aerial	photos, pro	evious ins	spections),	if available:	
Domorko								
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty:	Poulsbo		Samplin	g Date: 02/1	5/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Samplin	g Point: S11	
Investigator(s): MK, AR, AH			S	ection, To	wnship, Range: S15, T26	6N, R1E		
					convex, none): None		Slope (%	ဖ်): <u>2</u>
Subregion (LRR): LRR-A	Lat: <u>4</u> 7	°44'20).52"N		Long: 122°39'53.22"W	1	Datum: W	VGS84
Soil Map Unit Name: Poulsbo gravelly sandy loam, 0 - 6	percent sl	opes			NWI classifica	ıtion: No	ne	
Are climatic / hydrologic conditions on the site typical for thi	is time of ye	ar? Ye	es 🗸	No (If	no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signi	ficantly distu	urbed?		Are "Norn	nal Circumstances" prese	nt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natur	ally problem	atic?	(If needed	, explain any answers in F	Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samı	pling	point lo	ocations, transects,	, import	ant featur	es, etc.
Hydrophytic Vegetation Present? Yes ✔ No	1							
Hydric Soil Present? Hydric Soil Present? Yes No	1			Sampled		. —		
Wetland Hydrology Present? Yes V No]		within	a Wetlan	d? Yes ✓ N	I		
Remarks:								
In Wetland C Near WRC3								
VEGETATION – Use scientific names of plar	nts.							
To compare the second s	Absolute			ndicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 5m radius 1. Thuja plicata	% Cover 40	Spec Y		Status FAC	Number of Dominant Sp That Are OBL, FACW, o		1	(A)
2. Pseudotsuga menziesii*	15	N		FACU				_ (A)
3	-				Total Number of Domina Species Across All Strat		1	(B)
4					·	-		_ (-/
a it (a) the control am radius	55	_ = To	tal Cov	er	Percent of Dominant Sp That Are OBL, FACW, o		100	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. None	0				Prevalence Index work	csheet:		
1. None 2					Total % Cover of:		Multiply by:	
3.					OBL species			
4					FACW species	x 2	2 = 0	
5							3 = 0	
Herb Stratum (Plot size: 1m radius	0	_ = To	tal Cov	er	FACU species			
1. None	0					x 5		(D)
2.					Column Totals: 0	(A)		(B)
3.					Prevalence Index	= B/A =		
4					Hydrophytic Vegetatio			
5					Rapid Test for Hydro		egetation	
6					Dominance Test is >			
7					Prevalence Index is			
8					Morphological Adap data in Remarks			
9					Wetland Non-Vascu	lar Plants	1	
10 11.		-			Problematic Hydrop	hytic Vege	etation ¹ (Expl	ain)
	_	= To	tal Cov	er	¹ Indicators of hydric soil be present, unless distu			/ must
Woody Vine Stratum (Plot size: 1m radius		_			be present, unless distu	inea oi bi	obiematic.	
1. None	0				Hydrophytic			
2	_				Vegetation	Na Na		
% Bare Ground in Herb Stratum 100	0	_ = To	tal Cov	er	Present? Yes	No No	Ш	
Remarks:					1			
*Pseudotsuga menziesii is not rooted in WRC								

Depth	cription: (Describe Matrix	to the de	oth needed to docui	ment the ir x Features		or confirm	the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)	<u> %</u>	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/1	100					Sandy Loam	
6-16	10YR 2/1	90	10YR 4/6	10			Sandy Loam	
	101112/1		101111110					
	-		-					-
	-	<u> </u>		<u> </u>				
			-	=				
			=Reduced Matrix, CS			ed Sand Gr		eation: PL=Pore Lining, M=Matrix.
		cable to all	LRRs, unless othe		a.)		_	rs for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2)		Sandy Redox (S				_	Muck (A10) Parent Material (TF2)
Black Hi			Loamy Mucky N	. ,	(evcent	MIRA 1)	_	Shallow Dark Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed		схссрі	WEIGH I)	= '	r (Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Matrix					,
_ ·	ark Surface (A12)	,	Redox Dark Sur	. ,			3Indicato	rs of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark S	Surface (F7	·)		wetlar	nd hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	ions (F8)			unles	s disturbed or problematic.
	Layer (if present):							
Type:	-1 \							
Depth (in	ches):						Hydric Soil	Present? Yes V No No
Remarks:								
HYDROLO	GY							
	drology Indicators	:						
			d; check all that appl	v)			Secon	ndary Indicators (2 or more required)
	Water (A1)	ono roquire	_		s (BQ) (a	xcept MLR		ater-Stained Leaves (B9) (MLRA 1, 2,
	iter Table (A2)		_	A, and 4B)	. , .	ACCPL MEN	ъ Ц …	4A, and 4B)
Saturation	, ,		Salt Crust				□ Dr	ainage Patterns (B10)
	arks (B1)		Aquatic Inv	` '	(B13)			y-Season Water Table (C2)
=	nt Deposits (B2)		Hydrogen		. ,		_	aturation Visible on Aerial Imagery (C9)
	posits (B3)				` '	Living Root		eomorphic Position (D2)
_	at or Crust (B4)			of Reduced	_	_		nallow Aquitard (D3)
	osits (B5)		=		`	d Soils (C6)		AC-Neutral Test (D5)
	Soil Cracks (B6)		_	Stressed F		` ,		aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	_	lain in Ren		., (=::::,		ost-Heave Hummocks (D7)
_	Vegetated Concav		· —		,		_	, ,
Field Obser		•	,					
Surface Wat	er Present?	Yes N	Depth (inches	s):				
Water Table		_	Depth (inches					
Saturation P		=	Depth (inches			Wetla	and Hydrology	y Present? Yes ✓ No
(includes ca	pillary fringe)			,				,
Describe Re	corded Data (strear	n gauge, m	onitoring well, aerial	photos, pre	vious ins	spections),	if available:	
Remarks:								
Ì								

Project/Site: 21199 - Viking Ave NW		City/County	: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S12
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	N, R1E
					Slope (%): 2
Subregion (LRR): LRR-A	Lat: _47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classificat	ion: None
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 signif	icantly distur	rbed?	Are "Norr	mal Circumstances" preser	ıt? Yes ✔ No
Are Vegetation, Soil, or Hydrology natura	ally problema	atic?	(If needed	d, explain any answers in R	emarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No					
Hydric Soil Present?			e Sampled		
Wetland Hydrology Present? Yes V No	I	with	in a Wetlar	nd? Yes ✓ No	ا ــــــــــــــــــــــــــــــــــــ
Remarks:		•			
In Wetland B near WRB6.					
VEGETATION – Use scientific names of plan					
VEGETATION – Ose scientific flames of plan	Absolute	Dominant	Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius	% Cover			Number of Dominant Spe	
1. Thuja plicata	30	Y	FAC	That Are OBL, FACW, or	
2				Total Number of Domina	nt
3				Species Across All Strata	
4				Percent of Dominant Spe	ecies
Sapling/Shrub Stratum (Plot size: 3m radius	30	= Total C	over	That Are OBL, FACW, or	r FAC: 100 (A/B)
1. Rubus spectabilis	50	Υ	FAC	Prevalence Index work	sheet:
2. Vaccinium parvifolium	5	N	FACU	Total % Cover of:	Multiply by:
3.				OBL species	x 1 = 0
4				FACW species	x 2 = 0
5				1	x 3 = 0
Herb Stratum (Plot size: 1m radius	55	= Total C	over	FACU species	
1 None	0			l	x = 0
2				Column Totals: 0	(A) <u>0</u> (B)
3				Prevalence Index	= B/A =
4.				Hydrophytic Vegetation	
5.				Rapid Test for Hydro	phytic Vegetation
6				Dominance Test is >	50%
7				Prevalence Index is:	
8					ations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	' '
10					nytic Vegetation ¹ (Explain)
11				- 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	0	= Total C	over	be present, unless distur	
1. None	0				
2.				Hydrophytic Vegetation	
	0	= Total C	over		✓ No 🗌
% Bare Ground in Herb Stratum 100					
Remarks:					

Depth	Matrix		Podo	x Features			
(inches)	Matrix Color (moist)	%	Color (moist)		e ¹ Loc ²	Texture	Remarks
0-16	10YR 2/1	100				Silt Loam	
	1011(2/1		-			Oilt Eddini	
				_		-	
						-	
			-				
			=Reduced Matrix, CS		oated Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise noted.)		Indicate	ors for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Redox (S	S5)		2 cr	n Muck (A10)
Histic Ep	pipedon (A2)		Stripped Matrix	• •		_	Parent Material (TF2)
Black His	, ,		Loamy Mucky M		cept MLRA 1)	_	/ Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed N			✓ Oth	er (Explain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Matrix			31	oro of budrophysic
	ark Surface (A12)		Redox Dark Sur	. ,			ors of hydrophytic vegetation and
_	lucky Mineral (S1) leyed Matrix (S4)		Depleted Dark S Redox Depressi	, ,			and hydrology must be present, ss disturbed or problematic.
	Layer (if present):		Redox Deplessi	10113 (1 0)		unie.	ss disturbed of problematic.
Type:							
Depth (in	ches):					Hydric Soi	I Present? Yes ✔ No
Remarks:						Tryuno con	111050Ht. 105[V] 110[
	ورزيرها والخارين والموا	مدم مسم	عاد ماند ماند				langed pariods. Dadayina makis
			turation and inun		ited of Satur	ated for pro	longed periods. Redoximorphic
leatures III	ay be masked t	iue io sai	uranon and mun				
				dation.			
Wetland Hy	drology Indicators						
Wetland Hy	drology Indicators		ed; check all that appl	у)			ndary Indicators (2 or more required)
Wetland Hyder Primary India	drology Indicators cators (minimum of Water (A1)		ed; check all that appl	y) ned Leaves (B9) (except MLI		/ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hyder Primary India Surface Wetland Hyder	drology Indicators cators (minimum of Water (A1) ter Table (A2)		ed; check all that appl Water-Stai	y) ned Leaves (B9 A, and 4B)	e) (except MLI	RA U	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Primary India Surface High Wa Saturatio	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3)		ed; check all that appl Water-Stai 1, 2, 44	y) ned Leaves (B9 A, and 4B) (B11)		RA D	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rrainage Patterns (B10)
Wetland Hy Primary India Surface High Wa Saturatio Water M	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		d; check all that appl Water-Stai 1, 2, 44 Salt Crust of	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13	3)	RA V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2)
Wetland Hyderimary India Surface Wetland Water Methods Sediment	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) nt Deposits (B2)		ed; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C	3) 1)	RA V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		ed; check all that appl Water-Stai 1, 2, 44 Salt Crust Aquatic Inv Hydrogen S	y) ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (C	3) 1) ong Living Roo	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4)		ed; check all that appl Water-Stai 1, 2, 4,4 Salt Crust Aquatic Inv Hydrogen S Oxidized R	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C	3) 1) ong Living Roc (C4)	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3)
Wetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5)		ed; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C Rhizospheres ald of Reduced Iron n Reduction in T	3) 1) ong Living Roo (C4) Filled Soils (C6	RA W D D S Ots (C3) G S S S	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Beomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6)	one require	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iron Stunted or	y) ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron n Reduction in Tatressed Plants	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V D D S ots (C3) G S) F) P	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hyderimary India Surface High Wa Saturation Water M Sediment Drift Dep Algal Ma Iron Dep Surface Inundation Inundation Inundation Inundation Inundation Iron Dep Inundation	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	one require	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or Other (Exp	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C Rhizospheres ald of Reduced Iron n Reduction in T	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V D D S ots (C3) G S) F) P	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Beomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav	one require	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or Other (Exp	y) ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron n Reduction in Tatressed Plants	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V D D S ots (C3) G S) F) P	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydelian Primary India Surface of High Wa High Wa Saturation Water M Sediment Drift Dep Algal Ma Iron Dep Surface of Inundation Sparsely Field Obser	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 of Vegetated Concavivations:	one require	ed; check all that appl Water-Stai 1, 2, 44 Salt Crust (Aquatic Inv Hydrogen (Oxidized R Presence (Recent Iron Stunted or (Other (Exp	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C chizospheres ald of Reduced Iron n Reduction in T Stressed Plants	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V D D S ots (C3) G S) F) P	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydelian Primary India Surface Very High Water Meter	drology Indicators cators (minimum of Water (A1) tter 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?	one require Imagery (B e Surface (d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or T) Other (Exp	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C thizospheres ald of Reduced Iron in Reduction in T Stressed Plants blain in Remarks	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V D D S ots (C3) G S) F) P	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Water Table	drology Indicators cators (minimum of Water (A1) tter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concav vations: er Present?	Imagery (B e Surface (Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or Other (Exp B8) Depth (inches	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C chizospheres ald of Reduced Iron in Reduction in T Stressed Plants blain in Remarks s):	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Primary India Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundatio Sparsely Field Obser Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B6) Iter Crust (B	Imagery (B'e Surface (1) Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or T) Other (Exp	y) ned Leaves (B9 A, and 4B) (B11) vertebrates (B13 Sulfide Odor (C chizospheres ald of Reduced Iron in Reduction in T Stressed Plants blain in Remarks s):	3) 1) ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA V	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Irrainage Patterns (B10) Irry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Ideomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydelian Primary India Surface High Wa Saturation Water M Sediment Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B5) Iter Crust (B6) Iter Crust (B6) Iter Vegetated Concave Iter Present? Iter Present? Iter Crust (B6) Iter Crust	Imagery (B e Surface (I Yes No Yes No Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv. Hydrogen of Oxidized Recent Iron Stunted or 7) Other (Exp. Depth (inchest of Depth (inchest of Inchest of Inchest of Inchest of Depth (inchest of Inchest of Inchest of Depth (inchest of Inchest	ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron in Reduction in Stressed Plants (B13) Sie	B) 1) png Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hyderimary India Primary India Surface of Primary India Water Management Sediment Algal Management Iron Dep Surface of Inundation Sparsely Field Obser Surface Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B5) Iter Crust (B6) Iter Crust (B6) Iter Vegetated Concave Iter Present? Iter Present? Iter Crust (B6) Iter Crust	Imagery (B e Surface (I Yes No Yes No Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv Hydrogen of Oxidized R Presence of Recent Iron Stunted or Other (Exp B8) Depth (inches	ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron in Reduction in Stressed Plants (B13) Sie	B) 1) png Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hydelian Primary India Surface Wetland Water Medical Sediment Drift Dep Algal Mater Medical Iron Dep Surface Surface Surface Water Table Saturation Period (includes caped)	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B5) Iter Crust (B6) Iter Crust (B6) Iter Vegetated Concave Iter Present? Iter Present? Iter Crust (B6) Iter Crust	Imagery (B e Surface (I Yes No Yes No Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv. Hydrogen of Oxidized Recent Iron Stunted or 7) Other (Exp. Depth (inchest of Depth (inchest of Inchest of Inchest of Inchest of Depth (inchest of Inchest of Inchest of Depth (inchest of Inchest	ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron in Reduction in Stressed Plants (B13) Sie	B) 1) png Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B5) Iter Crust (B6) Iter Crust (B6) Iter Vegetated Concave Iter Present? Iter Present? Iter Crust (B6) Iter Crust	Imagery (B e Surface (I Yes No Yes No Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv. Hydrogen of Oxidized Recent Iron Stunted or 7) Other (Exp. Depth (inchest of Depth (inchest of Inchest of Inchest of Inchest of Depth (inchest of Inchest of Inchest of Depth (inchest of Inchest	ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron in Reduction in Stressed Plants (B13) Sie	B) 1) png Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)
Wetland Hydelian Primary India Surface Very High War Very Saturation Water Mere Sediment Algal Mar Iron Dep Surface Surface Surface Water Table Saturation Per (includes caped Describe Reservery India No. 1997) Surface Water Table Saturation Per (includes caped Describe Reservery India No. 1997) Describe Reservery India No. 1997 Primary Ind	drology Indicators cators (minimum of Water (A1) Iter Table (A2) Iter Table (A2) Iter Table (A2) Iter Table (B1) Iter Table (B3) Iter Crust (B4) Iter Crust (B4) Iter Crust (B5) Iter Crust (B6) Iter Crust (B6) Iter Vegetated Concave Iter Present? Iter Present? Iter Crust (B6) Iter Crust	Imagery (B e Surface (I Yes No Yes No Yes No	d; check all that appl Water-Stai 1, 2, 44 Salt Crust of Aquatic Inv. Hydrogen of Oxidized Recent Iron Stunted or 7) Other (Exp. Depth (inchest of Depth (inchest of Inchest of Inchest of Inchest of Depth (inchest of Inchest of Inchest of Depth (inchest of Inchest	ned Leaves (BSA, and 4B) (B11) vertebrates (B13) Sulfide Odor (Canizospheres aldof Reduced Iron in Reduction in Stressed Plants (B13) Sie	B) 1) png Living Roc (C4) Filled Soils (C6 s (D1) (LRR A	RA	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Parainage Patterns (B10) Pary-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) Recomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) Paised Ant Mounds (D6) (LRR A) Prost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Cour	nty: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S13
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26N	N, R1E
				, convex, none): None	
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	!"N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent :	slopes		NWI classification	on: None
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Yes	No (I		
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Nori	mal Circumstances" present	? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in Re	— —
SUMMARY OF FINDINGS – Attach site map					
Walter C. Vander Brown					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V		ls t	the Sampled		
Wetland Hydrology Present?		wit	hin a Wetlar	nd? Yes No	
Remarks:					
Out of Wetland B Near WRB6					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		nt Indicator ? Status	Dominance Test worksh	
Thuja plicata	65	Y	FAC	Number of Dominant Spectral That Are OBL, FACW, or	
2. Pseudotsuga menziesii	15	N	FACU		
3. Acer macrophyllum	10	N	FACU	Total Number of Dominan Species Across All Strata:	
4.			-		(=/
	90	= Total	Cover	Percent of Dominant Spec That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius	00	V	E4011		
1. Vaccinium ovatum	<u>20</u> 5	Y Y	FACU	Prevalence Index works	
2. Thuja plicata			FAC	Total % Cover of: OBL species	
3					x = 0 $x = 0$
4		-			x 3 = 210
5	25	= Total	Cover	FACU species 55	x 4 = 220
Herb Stratum (Plot size: 1m radius		- 10141		UPL species 20	x 5 = 100
Polystichum munitum	25	Υ	FACU	Column Totals: 145	(A) <u>530</u> (B)
2					5.4. 2.6E
3				Prevalence Index =	
4				Hydrophytic Vegetation Rapid Test for Hydrop	
5				Dominance Test is >5	·
6				Prevalence Index is ≤	
7 8					tions ¹ (Provide supporting
9					or on a separate sheet)
10				Wetland Non-Vascula	
11.				- 	tic Vegetation ¹ (Explain)
	25	= Total	Cover	¹ Indicators of hydric soil a be present, unless disturb	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius				be present, unless disturb	ed of problematic.
1. None	0		-	Hydrophytic	
2				Vegetation	□ No[Z]
% Bare Ground in Herb Stratum 75	0	= Total	Cover	Present? Yes	No ✓
Remarks:				1	

Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	Color (moist) % Type¹ Loc²	Sandy loam Dry Sandy loam Dry
Type: C=Concentra Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	I LRRs, unless otherwise noted.)	Sandy loam Dry nd Grains. 2Location: PL=Pore Lining, M=Matrix.
Type: C=Concentra Hydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	tion, D=Depletion, RMrs: (Applicable to al	I LRRs, unless otherwise noted.)	nd Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Hydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Hydric Soil Indicate Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
ydric Soil Indicato Histosol (A1) Histic Epipedon (Black Histic (A3)	rs: (Applicable to al	I LRRs, unless otherwise noted.)	
Histosol (A1) Histic Epipedon (Black Histic (A3)			
Histic Epipedon (Black Histic (A3)	• • `	Sandy Redox (S5)	2 cm Muck (A10)
Black Histic (A3)	A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
		Loamy Mucky Mineral (F1) (except MLRA	A 1)
Hydrogen Sulfide	• •	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
= '	Dark Surface (A11)	Depleted Matrix (F3)	3 ladicators of hydrophytic vacatation and
Thick Dark Surfa Sandy Mucky Mi	, ,	Redox Dark Surface (F6) Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present,
Sandy Mideky Mil		Redox Depressions (F8)	unless disturbed or problematic.
estrictive Layer (if			
Type:			
Depth (inches):			Hydric Soil Present? Yes No ✔
emarks:			
/DROLOGY	In Protein		
/etland Hydrology		ed; check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A		Water-Stained Leaves (B9) (except	
High Water Table		1, 2, 4A, and 4B)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturation (A3)	(NZ)	Salt Crust (B11)	Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Depos		Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9
Drift Deposits (B:	` '	Oxidized Rhizospheres along Living	
=		Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
Algal Mat or Crus	•	Recent Iron Reduction in Tilled Soils	s (C6) FAC-Neutral Test (D5)
Iron Deposits (B	9)		,
_		Stunted or Stressed Plants (D1) (LR	RR A) Raised Ant Mounds (D6) (LRR A)
Iron Deposits (B5			RR A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Deposits (B5 Surface Soil Crac Inundation Visible	cks (B6)	7) Other (Explain in Remarks)	
Iron Deposits (B5 Surface Soil Crad Inundation Visible Sparsely Vegeta	cks (B6) e on Aerial Imagery (B ed Concave Surface (77) Other (Explain in Remarks) (B8)	
Iron Deposits (Be Surface Soil Crac Inundation Visible Sparsely Vegetatield Observations urface Water Prese	cks (B6) e on Aerial Imagery (B ed Concave Surface (Other (Explain in Remarks) Our Depth (inches):	
Iron Deposits (Be Surface Soil Crace Inundation Visible Sparsely Vegetations: ield Observations:	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N ? Yes N	Other (Explain in Remarks) Our Depth (inches): Depth (inches):	
Iron Deposits (BE) Surface Soil Crace Inundation Visible Sparsely Vegetar Field Observations: Surface Water Present Vater Table Present Staturation Present?	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N	(B8) O Depth (inches): Depth (inches):	
Iron Deposits (Basel Surface Soil Crace Inundation Visible Sparsely Vegetations: Surface Water Presentaturation Present? Includes capillary fri	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (Be Surface Soil Crad Inundation Visible Sparsely Vegetatield Observations: urface Water Present/ater Table Present? aturation Present?	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	Other (Explain in Remarks) OU Depth (inches): Depth (inches):	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (BS Surface Soil Crace Inundation Visible Sparsely Vegetations aurface Water Present Atturation Present Present Cludes capillary friescribe Recorded In Surface Recorded Includes	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No
Iron Deposits (Basel Surface Soil Crace Inundation Visible Sparsely Vegetations: urface Water Presentaturation Present? Includes capillary fries.	cks (B6) e on Aerial Imagery (B ed Concave Surface (nt? Yes N Yes N Yes N	(B8) O	Frost-Heave Hummocks (D7) Wetland Hydrology Present? Yes No

Project/Site: 21199 - Viking Ave NW	(City/County	y: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S14
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	6N, R1E
					Slope (%): 15
Subregion (LRR): LRR-A	_ Lat: 47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes		NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Yes	No (I		
Are Vegetation, Soil, or Hydrology signifi	icantly distur	rbed?	Are "Nor	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in R	— —
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes ✓ No					
Hydric Soil Present? Yes V No			e Sampled		
Wetland Hydrology Present? Yes V No		with	in a Wetlar	nd? Yes ✓ No) <u> </u>
Remarks:		l			-
In Wetland D near WRDD7					
VEGETATION – Use scientific names of plant	ts.				
	Absolute	Dominant	Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius	% Cover	Species?	Status	Number of Dominant Sp	ecies
1. None	0			That Are OBL, FACW, o	r FAC: 2 (A)
2				Total Number of Domina	
3				Species Across All Strat	a: <u>3</u> (B)
4				Percent of Dominant Sp	
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Total C	over	That Are OBL, FACW, o	r FAC: <u>66</u> (A/B)
1. Fallopia japonica	30	Υ	FACU	Prevalence Index work	sheet:
2. Rubus armeniacus	10	Y	FAC	Total % Cover of:	Multiply by:
3				OBL species	x 1 = 0
4				FACW species	x 2 = <u>0</u>
5				FAC species	
Light Outstand (District of 1m radius	40	= Total C	over		x = 0
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	95	Υ	FACW	_	x 5 = 0
Athyrium filix-femina	5		FAC	Column Totals: 0	(A) <u>0</u> (B)
3				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	phytic Vegetation
6.				Dominance Test is >	50%
7				Prevalence Index is	≤3.0 ¹
8					tations ¹ (Provide supporting
9				Wetland Non-Vascul	or on a separate sheet)
10					nytic Vegetation ¹ (Explain)
11				1	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	100	= Total C	over	be present, unless distu	
4 None	0				
1. Note 2				Hydrophytic	
	0	= Total C	over	Vegetation Present? Yes	✓ No
% Bare Ground in Herb Stratum _0					<u> </u>
Remarks:					
İ					

Depth	Matrix			ox Featur	<u>es</u>	0		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks Remarks
0-5	10YR 3/2	100					Sandy Loar	<u> </u>
5-16	10YR 3/1	95	2.5Y 4/4	5	<u>C</u>	M	Sandy Loar	<u> </u>
•			M=Reduced Matrix, C			ed Sand G		Location: PL=Pore Lining, M=Matrix.
_		icable to a	II LRRs, unless other		ited.)			ators for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)		Sandy Redox				_	cm Muck (A10) ed Parent Material (TF2)
Black His			Loamy Mucky	. ,	1) (excen	t MI RA 1)	_	ery Shallow Dark Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed			t incita i,	_	ther (Explain in Remarks)
_ ` `	l Below Dark Surfac	ce (A11)	Depleted Matri		,			,
Thick Da	rk Surface (A12)		Redox Dark Su	ırface (F6)		³ Indic	ators of hydrophytic vegetation and
Sandy M	lucky Mineral (S1)		Depleted Dark	Surface (F7)			tland hydrology must be present,
	leyed Matrix (S4)		Redox Depres	sions (F8)			un	less disturbed or problematic.
	Layer (if present):							
Type:								
Depth (in	ches):						Hydric S	oil Present? Yes 🗸 No
/DROLO	GY							
Vetland Hy	drology Indicators							
Vetland Hy	drology Indicators		ed; check all that app	oly)			Sec	condary Indicators (2 or more required)
Vetland Hydrimary Indic	drology Indicators cators (minimum of Water (A1)		_		ves (B9) (e	except MLI		Water-Stained Leaves (B9) (MLRA 1, 2,
/etland Hydrimary India Surface \ High Wa	drology Indicators cators (minimum of Water (A1) ter Table (A2)		Water-Sta	ained Leav		except MLI		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
/etland Hydrimary Indice Surface \ High Wa	drology Indicators cators (minimum of Water (A1) ter Table (A2)		☐ Water-Sta	ained Leav		except MLI		Water-Stained Leaves (B9) (MLRA 1, 2,
rimary Indicated	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta	ained Leav I A, and 4I t (B11)	3)	except MLI		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
rimary Indications of the Indication of the Indi	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen	ained Leaver A. A. and 48 to (B11) invertebrate Sulfide C	es (B13) odor (C1)		RA	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
/etland Hydrimary Indice Surface Management High Wa Saturation Water Management Sediment Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized	ained Leaver A.	es (B13) dor (C1) eres along	Living Roc	RA	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)
Vetland Hydrimary Indicential Surface of High Wards of Saturation water Market Sedimen Drift Dep	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence	ained Leav IA, and II t (B11) overtebrate Sulfide C Rhizosphe of Reduce	es (B13) odor (C1) eres along ed Iron (C-	Living Roc 4)	RA	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)
Vetland Hydrimary Indice Surface Management High War Saturation Water Management Sedimen Drift Dep Algal Management	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5)		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ire	ained Leav IA, and II t (B11) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) odor (C1) eres along ed Iron (Co	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indicential Surface	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)	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted o	ained Leav A, and 4E t (B11) nvertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4)	RA	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)
Vetland Hydrimary India Surface V High Wa Saturation Water Ma Sediment Drift Dep Algal Ma Iron Dep Surface S Inundation	cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav IA, and II t (B11) overtebrate Sulfide O Rhizosphe of Reduct	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indicential Surface of High Warder Marting Sedimento Drift Departon Drift Departon Departon Departon Departon Departon Surface of Sparsely	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aerial	one require	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4E t (B11) nvertebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed	es (B13) odor (C1) eres along ed Iron (C- ion in Tille d Plants (D	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Verimary Indice Surface Verimary Mader	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 or Vegetated Concavivations:	Imagery (E	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4B t (B11) overtebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) dor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Verimary Indice Surface Verimary Mader	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 ovegetated Concav vations:	Imagery (Eve Surface	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) (B8) Depth (inches	ained Leav A, and 4B t (B11) overtebrate Sulfide O Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) dor (C1) eres along ed Iron (C- ion in Tille d Plants (D emarks)	Living Roc 4) d Soils (C6	RA	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)
Vetland Hydrimary Indice Surface Value Saturation Water Management Sediment Iron Dep Surface Saturation Surface Saturation Surface Saturation Surface Saturation	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 at Vegetated Concave vations: er Present?	Imagery (Eve Surface	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leav A, and 4E (B11) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roc 4) d Soils (C6	RA	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)
Surface Water Table Saturation Primary Indic Surface Water March Sedimen Drift Dep Algal Ma Iron Dep Surface Surface Surface Water Table Saturation P	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial or Vegetated Concav vations: er Present? Present?	Imagery (Eve Surface Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) (B8) Depth (inches	ained Leav A, and 4E (B11) nvertebrate Sulfide C Rhizosphe of Reduct on Reduct r Stressed plain in Re	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 11) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Primary Indice	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of Other (Ex	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Primary Indice Primary Indice Surface V Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface S Inundation Sparsely Field Obser Surface Water Vater Table Saturation P Includes cap Describe Rec	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Vetland Hydrimary Indice Surface Value Saturation Water Management Sediment Drift Dep Algal Management Iron Dep Surface Saturation Sparsely Field Obsert Surface Water Table Staturation Pencludes cap	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Vetland Hydrimary Indice Indice In ice In Indice In Indice In Indice In Indice Indi	drology Indicators cators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) osits (B3) ot or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial of Vegetated Concave vations: er Present? Present? resent?	Imagery (Eve Surface Yes N Yes N	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydroger Oxidized Presence Recent Ir Stunted of 37) Other (Ex (B8) Depth (inche	ained Leaver A, and 4E (B11) invertebrate a Sulfide O Rhizosphe of Reduct on Reduct or Stressed plain in Research	es (B13) bdor (C1) eres along ed Iron (C- ion in Tille d Plants (D- emarks)	Living Roo 4) d Soils (C6 1) (LRR A	ots (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) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S15
				ownship, Range: S15, T26	
					Slope (%): 15
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52'	'N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes		NWI classificat	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	r? Yes			·
Are Vegetation, Soil, or Hydrology signif	•			mal Circumstances" presen	nt? Yes ✓ No
Are Vegetation , Soil , or Hydrology natura				d, explain any answers in R	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No V		ls t	he Sampled		
Wetland Hydrology Present?		with	hin a Wetlar	nd? Yes No	
Remarks:					
Out of Wetland D near WRDD1					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute % Cover		t Indicator	Dominance Test works	
Thuja plicata	60	Y	FAC	Number of Dominant Spe That Are OBL, FACW, or	
2. Pseudotsuga menziesii	10	N	FACU		
3. Alnus rubra	10	N	FAC	Total Number of Domina Species Across All Strata	
4.					
One we dive	80	= Total 0	Cover	Percent of Dominant Spe That Are OBL, FACW, or	
Sapling/Shrub Stratum (Plot size: 3m radius 1 llex aquifoluim	5	Y	FACU	Prevalence Index works	
		-			Sneet: Multiply by:
2					x 1 = 0
4					x 2 = 0
5				FAC species	
	5	= Total (Cover	FACU species	x 4 = 0
Herb Stratum (Plot size: 1m radius	60	V	EACH	UPL species	x 5 = <u>0</u>
1. Polystichum munitum	60			Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index :	= B/A =
3 4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	phytic Vegetation
6.				Dominance Test is >	50%
7				Prevalence Index is	≤3.0 ¹
8					ations ¹ (Provide supporting
9				Wetland Non-Vascul	or on a separate sheet)
10					nytic Vegetation ¹ (Explain)
11		-		I 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	60	= Total (Cover	be present, unless distur	
1. None	0				
2.				Hydrophytic Vegetation	
	0	= Total (Cover	Present? Yes	☐ No 🗸
% Bare Ground in Herb Stratum 40					
Remarks:					

Depth	ription: (Describe Matrix	to the dep	th needed to docur	nent the in x Features	dicator	or confirm	the absence	of indicat	ors.)
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture		Remarks
0-5	7.5YR 3/2	100					Sandy Loam	Dry	
5-16	10YR 4/4	100					Sandy Loam	Dry	
0 10	10111111							<u>D</u> 1,y	
		=						-	
		-							
	-		-					-	
	-	-						-	
			=Reduced Matrix, CS			ed Sand Gr			=Pore Lining, M=Matrix.
		cable to all	LRRs, unless other		d.)				blematic Hydric Soils ³ :
Histosol	• •		Sandy Redox (S				_	Muck (A1	
Black Hi	ipedon (A2)		Stripped Matrix Loamy Mucky M		(avcant	MI DA 1	_		iterial (TF2) Park Surface (TF12)
_	n Sulfide (A4)		Loamy Gleyed N		(except	MERA I)			in Remarks)
	l Below Dark Surfac	e (A11)	Depleted Matrix					(,
Thick Da	rk Surface (A12)		Redox Dark Sur	face (F6)			³ Indicate	ors of hydro	phytic vegetation and
_	ucky Mineral (S1)		Depleted Dark S	, ,)			-	gy must be present,
	leyed Matrix (S4)		Redox Depressi	ons (F8)			unles	s disturbe	d or problematic.
	Layer (if present):								
Type:	 ches):								🗆 🗖
	U1165)						Hydric Soil	Present?	Yes No ✔
Remarks:									
HYDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			Seco	ndary Indic	ators (2 or more required)
Surface	Water (A1)		☐ Water-Stair	ned Leaves	(B9) (e	xcept MLR	A	ater-Staine	ed Leaves (B9) (MLRA 1, 2,
High Wa	ter Table (A2)		1, 2, 4	, and 4B)				4A, and	4B)
Saturation	on (A3)		Salt Crust ((B11)			□ D	rainage Pa	tterns (B10)
Water M	arks (B1)		Aquatic Inv	ertebrates	(B13)			-	Water Table (C2)
Sedimer	t Deposits (B2)		Hydrogen S	Sulfide Odo	r (C1)		∐ s	aturation V	isible on Aerial Imagery (C9)
Drift Dep	osits (B3)		Oxidized R	hizosphere	s along	Living Root	s (C3) 📙 G	eomorphic	Position (D2)
	t or Crust (B4)		Presence o		`	,		hallow Aqu	
	osits (B5)		Recent Iror			, ,		AC-Neutral	
_	Soil Cracks (B6)	, ,==	Stunted or		•	1) (LRR A)			Mounds (D6) (LRR A)
_	on Visible on Aerial			lain in Rem	arks)		L Fi	rost-Heave	Hummocks (D7)
	Vegetated Concav	e Surrace (i	38)						
Field Obser		□ N	. C. Bradt Cratica	`					
Surface Wat		=	Depth (inches						
Water Table		=	Depth (inches						
Saturation P (includes ca		Yes No	Depth (inches):		Wetla	and Hydrolog	y Present	? Yes∐ No ✓
		n gauge, m	onitoring well, aerial	ohotos, prev	vious ins	spections), i	if available:		
	`	- -		• •					
Remarks:									

Project/Site: 21199 - Viking Ave NW	(City/Count	y: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S16
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
Landform (hillslope, terrace, etc.): Hillslope		Local relie	ef (concave	, convex, none): None	Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: 47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classifica	tion: None
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 signif	icantly distur	rbed?	Are "Nori	mal Circumstances" preser	nt? Yes ✔ No
Are Vegetation, Soil, or Hydrology natura	ılly problema	atic?	(If needed	d, explain any answers in R	demarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes V No					
Hydric Soil Present? Yes V No			e Sampled		. 🗆
Wetland Hydrology Present? Yes V No		With	in a Wetlar	na? Yes_♥_ No) <u> </u>
Remarks:					
In Wetland E near WRE4					
VEGETATION – Use scientific names of plan	te				
VEGETATION – Ose scientific fiames of plan	Absolute	Dominant	Indicator	Dominance Test works	sheet:
Tree Stratum (Plot size: 5m radius	% Cover			Number of Dominant Sp	
1. None	0			That Are OBL, FACW, o	
2				Total Number of Domina	ant
3				Species Across All Strat	a: <u>3</u> (B)
4				Percent of Dominant Sp	ecies
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Total C	over	That Are OBL, FACW, o	r FAC: 100 (A/B)
1. Rosa Sp.	65	Υ	FAC*	Prevalence Index work	sheet:
2. Rubus armeniacus	35	Y	FAC	Total % Cover of:	Multiply by:
3.				OBL species	x 1 = <u>0</u>
4				FACW species	x 2 = <u>0</u>
5				FAC species	x 3 = <u>0</u>
Light Outstand (Distriction 1m radius	100	= Total C	over		x 4 = 0
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	100	Υ	FACW		x 5 = 0
	-		-	Column Totals: 0	(A) <u>0</u> (B)
2				Prevalence Index	= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	phytic Vegetation
6.				Dominance Test is >	50%
7				Prevalence Index is	≤3.0 ¹
8					tations ¹ (Provide supporting
9				Wetland Non-Vascul	or on a separate sheet)
10					nytic Vegetation ¹ (Explain)
11				 	and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius	100	= Total C	over	be present, unless distu	
1. None	0				
2				Hydrophytic	
	0	= Total C	over	Vegetation Present? Yes	✓ No
% Bare Ground in Herb Stratum 0			- *		_
Remarks:					
Rose Species is conservatively rated as "Facul	tative".				

(inches) 0-4 4-11	Matrix			dox Features			
	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> <u>Typ</u>	e ¹ Loc ²	<u>Texture</u>	<u>Remarks</u>
4-11	10YR 3/1.5	100				Sandy Loam	
	10YR 4/1	95	10YR 3/6	5		Sandy Loam	-
11-16	10YR 4/1	88	10YR 3/6	12		Sandy Loam	
Hydric Soil I Histosol (Histic Epi Black His Hydroger Depleted Thick Dan Sandy Mi Sandy Gl	Indicators: (Appli (A1) ipedon (A2)	cable to al	M=Reduced Matrix, C I LRRs, unless oth Sandy Redox Stripped Matrix Loamy Mucky Loamy Gleyed Depleted Matri Redox Dark Stripped Matrix Redox Dark Stripped Matrix	erwise noted.) (S5) x (S6) Mineral (F1) (exc) I Matrix (F2) ix (F3) urface (F6) Surface (F7)		Indicators 2 cm I Red P Very S Other Indicators wetlan	ntion: PL=Pore Lining, M=Matrix. Is for Problematic Hydric Soils ³ : Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) (Explain in Remarks) Is of hydrophytic vegetation and dhydrology must be present, disturbed or problematic.
Remarks:	ches):					Hydric Soil F	Present? Yes 🗸 No
IYDROLO	GY drology Indicators	 s:					
-			ed; check all that app	plv)		Second	dary Indicators (2 or more required)
Surface V	Water (A1) ter Table (A2) on (A3)	•	Water-Sta 1, 2, 4 Salt Crus	ained Leaves (B9 4 A, and 4B) it (B11) nvertebrates (B13		Dra	ter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) inage Patterns (B10) -Season Water Table (C2)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav		Oxidized Presence Recent Irr Stunted of Other (Ex	n Sulfide Odor (C Rhizospheres ald e of Reduced Iron on Reduction in T or Stressed Plants xplain in Remarks	ong Living Roo (C4) Filled Soils (C6 s (D1) (LRR A	Sat Sat Stat Shat Shat Shat FAC	uration Visible on Aerial Imagery (C9) omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations:	ve Surface (Oxidized Presence Recent Ire Stunted of Other (Ex	Rhizospheres ald e of Reduced Iron on Reduction in T or Stressed Plants xplain in Remarks	ong Living Roo (C4) Filled Soils (C6 s (D1) (LRR A	Sat Sat Stat Shat Shat Shat FAC	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent Irr Stunted of Other (Ex	Rhizospheres ald of Reduced Iron on Reduction in Tor Stressed Plants (plain in Remarks):	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent In Stunted of Other (Ex (B8) Depth (inche)	Rhizospheres ald of Reduced Iron on Reduction in Tor Stressed Plants (plain in Remarks):	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)
Water Ma Sediment Drift Depo Algal Mat Iron Depo Surface S Inundatio Sparsely Field Observ Surface Water Table Saturation Pr (includes cap	t or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present? Present? resent? pillary fringe)	Yes N Yes N Yes N	Oxidized Presence Recent Irr Stunted of Other (Ex	Rhizospheres ald of Reduced Iron on Reduction in Tor Stressed Plants (plain in Remarks):	ong Living Roc (C4) Filled Soils (C6 s (D1) (LRR A s)	Sat ots (C3) Ger Sha Sha Sha Sha FAG FAG And Fro	omorphic Position (D2) allow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6) (LRR A) st-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW	(City/C	County	_{/:} Poulsbo		Sampling	Date: 02/18	3/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling	Point: S17	
Investigator(s): MK, AR, AH				Section, To	ownship, Range: S15, T26	3N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Loca	al relie	ef (concave,	, convex, none): None		Slope (%)): <u>10</u>
Subregion (LRR): LRR-A	_ Lat: <u>47</u> °	44'20	0.52"	N	Long: <u>122°39'53.22"W</u>	!	Datum: W	GS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slope	es		NWI classifica	tion: Non	ie	
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ır? Y	es 🗸	No (li	f no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	rbed?	1	Are "Norr	mal Circumstances" prese	nt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natura	Ily problema	atic?		(If needed	d, explain any answers in F	≀emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	sam	plin	g point le	ocations, transects,	importa	ant feature	es, etc.
Hydrophytic Vegetation Present? Yes ✓ No								
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No V				e Sampled				
Wetland Hydrology Present? Yes No			with	in a Wetlar	nd? Yes N	٥٧		
Remarks:		!						
Out of Wetland E near WRE2								
VEGETATION – Use scientific names of plan	ts.							
- Company Empredius				Indicator	Dominance Test works	sheet:		
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0				Number of Dominant Sp		2	(4)
					That Are OBL, FACW, o	rfac: _2		(A)
2. 3.					Total Number of Domina Species Across All Strat		2	(B)
4							=	(D)
Sapling/Shrub Stratum (Plot size: 3m radius	0		otal C		Percent of Dominant Sp That Are OBL, FACW, o		100	(A/B)
Rubus armeniacus	60	Υ	,	FAC	Prevalence Index work	sheet:		
2					Total % Cover of:		Multiply by:	
3.					OBL species	x 1 :	= 0	
4					FACW species	x 2 :	= 0	_
5					FAC species	x 3 :	= 0	
1m radius	60	= To	otal C	over	FACU species			_
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	75	V	,	FACW	UPL species			_
				TACW	Column Totals: 0	(A)	0	(B)
2					Prevalence Index	= B/A =		
4					Hydrophytic Vegetatio			
5					Rapid Test for Hydro	phytic Veç	getation	
6					Dominance Test is >	·50%		
7					Prevalence Index is	≤3.0 ¹		
8					Morphological Adap			
9					data in Remarks Wetland Non-Vascu		parate sneet,)
10					Problematic Hydropl		tation ¹ (Expla	in)
11					¹ Indicators of hydric soil	, ,	` '	,
Woody Vine Stratum (Plot size: 1m radius	<u>75 </u>	= To	otal C	over	be present, unless distu			
1. None	0					·		
2.					Hydrophytic Vegetation			
	0	= To	otal C	over		No [
% Bare Ground in Herb Stratum 25								
Remarks:								

Depth	ription: (Describe Matrix	to the dep	th needed to docur	nent tne ind x Features	dicator	or confirm	tne absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture	Remarks_
0-16	10YR 2/2	100					Sandy Loam	Dry, No redox
			-					
		=						
¹ Type: C=C	oncentration, D=De	pletion, RM:	=Reduced Matrix, CS	S=Covered of	or Coate	ed Sand Gr	ains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless other					ors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox (S		•		_	n Muck (A10)
	ipedon (A2)		Stripped Matrix				_	Parent Material (TF2)
Black Hi	stic (A3)		Loamy Mucky M	lineral (F1) ((except	MLRA 1)	☐ Very	Shallow Dark Surface (TF12)
Hydroge	n Sulfide (A4)		Loamy Gleyed N	/latrix (F2)			Othe	er (Explain in Remarks)
_ ·	Below Dark Surfac	e (A11)	Depleted Matrix	. ,				
_	rk Surface (A12)		Redox Dark Sur					ors of hydrophytic vegetation and
	lucky Mineral (S1)		Depleted Dark S	, ,				and hydrology must be present,
_	leyed Matrix (S4)		Redox Depressi	ons (F8)			unles	s disturbed or problematic.
Type:	Layer (if present):							
,,	ches):						1	
Deptii (iii	GHes)						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
-			d; check all that appl	v)			Seco	ndary Indicators (2 or more required)
	Water (A1)	ono roquiro	_	ned Leaves	(B0) (a	vcent MI R		/ater-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			A, and 4B)	(D3) (C	Accet MEN	.~	4A, and 4B)
Saturation			Salt Crust	•			Пр	rainage Patterns (B10)
=	arks (B1)			rertebrates ('R13)		=	ry-Season Water Table (C2)
=	at Deposits (B2)			Sulfide Odor	. ,			aturation Visible on Aerial Imagery (C9)
=	oosits (B3)			hizospheres	` '	Living Root		eomorphic Position (D2)
=	t or Crust (B4)			of Reduced	_	_		hallow Aquitard (D3)
	osits (B5)		_	n Reduction	,	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		_	Stressed Pl		` ,		aised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (R7	_	lain in Rema	•	., (=KK A)		rost-Heave Hummocks (D7)
_	Vegetated Concave		· —		arro,			ost ricave riammosite (27)
Field Obser								
Surface Wat		Yes∏ No	Depth (inches	۸٠				
		=	=					
Water Table		=	Depth (inches					
Saturation P (includes ca		Yes No	Depth (inches	s):		Wetla	and Hydrolog	y Present? Yes No 🗸
		n gauge, mo	onitoring well, aerial	ohotos, prev	ious ins	spections),	if available:	
	,							
Remarks:								
. tomanto.								

Project/Site: 21199 - Viking Ave NW		City/Count	y: Poulsbo		Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S18
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	SN, R1E
					Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52"	N	Long: 122°39'53.22"W	Datum: WGS84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent	slopes		NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	✓ No (I	f no, explain in Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Nor	mal Circumstances" preser	nt? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	Illy problema	atic?	(If needed	d, explain any answers in R	temarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplir	ng point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No					
Hydric Soil Present? Yes V No			ne Sampled		
Wetland Hydrology Present? Yes V No		With	nin a Wetlar	nd? Yes ✓ No)
Remarks:					
In Wetland F near WRF11					
VEGETATION – Use scientific names of plant	ts.				
	Absolute		t Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 5m radius	% Cover	Species?		Number of Dominant Sp	ecies
1. Alnus rubra	20		FAC	That Are OBL, FACW, o	r FAC: 2 (A)
2				Total Number of Domina Species Across All Strati	
4.		-			
Sapling/Shrub Stratum (Plot size: 3m radius	20	= Total C	Cover	Percent of Dominant Spo That Are OBL, FACW, o	
1. None	0			Prevalence Index work	sheet:
2.				Total % Cover of:	Multiply by:
3				OBL species	
4				FACW species	
5				•	x = 0
Herb Stratum (Plot size: 1m radius	0	= Total C	Cover		x 4 = 0
Phalaris arundinacea	100	Υ	FACW		x = 0 (B)
2.				Column Totals	(A) <u> </u>
3					= B/A =
4				Hydrophytic Vegetation	
5				Rapid Test for Hydro	
6				Dominance Test is >	
7				Prevalence Index is	
8					rations ¹ (Provide supporting or on a separate sheet)
9				Wetland Non-Vascul	ar Plants ¹
10				Problematic Hydroph	nytic Vegetation ¹ (Explain)
11	100	= Total C	Cover		and wetland hydrology must
Woody Vine Stratum (Plot size: 1m radius		- rotar c	00101	be present, unless distur	bed or problematic.
1. None	0			Hydrophytic	
2			·	Vegetation	
% Bare Ground in Herb Stratum 0	0	= Total C	Cover	Present? Yes	✓ No
Remarks:					

Depth	Matrix			dox Featur	<u>es</u>	. 0		
(inches) 0-2	Color (moist) 10YR 2/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture Sandy Loam	Remarks
2-16	10YR 2/2	85	10YR 5/1	10	D	M	Sandy Loam	
2-10	10111 2/2		10 TR 5/1	5		M	Canay Loan	
								_
							. 2.	
•			M=Reduced Matrix, 0 II LRRs, unless oth			ed Sand G		ocation: PL=Pore Lining, M=Matrix. tors for Problematic Hydric Soils ³ :
Histosol			Sandy Redox		ŕ		_	cm Muck (A10)
Histic E	pipedon (A2)		Stripped Matri				Re	d Parent Material (TF2)
Black Hi	istic (A3)		Loamy Mucky	Mineral (F	1) (excep	t MLRA 1)	☐ Ve	ry Shallow Dark Surface (TF12)
Hydroge	en Sulfide (A4)		Loamy Gleyed	Matrix (F	2)		Otl	her (Explain in Remarks)
= '	d Below Dark Surfac	ce (A11)	Depleted Matr	. ,				
=	ark Surface (A12)		Redox Dark S	•	,			tors of hydrophytic vegetation and
= '	Mucky Mineral (S1)		Depleted Dark	•	•			land hydrology must be present,
	Bleyed Matrix (S4)		Redox Depres	sions (F8)			unle	ess disturbed or problematic.
	Layer (if present):							
Type:								
Depth (ir	nches):						Hydric Sc	oil Present? Yes ✔ No
DROLC	OGY							
-	drology Indicators							
_		one require	ed; check all that ap					ondary Indicators (2 or more required)
=	Water (A1)				. , .	xcept MLF	RA 📙	Water-Stained Leaves (B9) (MLRA 1, 2
= -	ater Table (A2)			4A, and 4I	3)		_	4A, and 4B)
Saturati	on (A3)		Salt Crus	t (B11)			닏	Drainage Patterns (B10)
=	1arks (B1)		Aquatic II	nvertebrate	es (B13)			Dry-Season Water Table (C2)
Sedime	nt Deposits (B2)		Hydroger	n Sulfide C	dor (C1)			Saturation Visible on Aerial Imagery (CS
Drift De	posits (B3)		Oxidized	Rhizosphe	eres along	Living Roo	ots (C3)	Geomorphic Position (D2)
Algal Ma	at or Crust (B4)		Presence	of Reduc	ed Iron (C	4)		Shallow Aquitard (D3)
Iron Dep	oosits (B5)		Recent Ir	on Reduct	ion in Tille	d Soils (C6	i)	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted of	or Stressed	d Plants (D	1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
Inundati	on Visible on Aerial	Imagery (E	37) 🔲 Other (Ex	kplain in R	emarks)			Frost-Heave Hummocks (D7)
Sparsely	y Vegetated Concav	e Surface	(B8)					
ield Obse	rvations:							
urface Wa	ter Present?	Yes N	lo 🗸 Depth (inche	es):				
/ater Table			lo 🗹 Depth (inch					
aturation F		=	lo Depth (inche			Wetl	and Hydrolo	gy Present? Yes 🗸 No
	pillary fringe)	163[•] 1	o Deptii (iiiciii	es). <u>-</u>		Well	iana myanolo	gy r resent: reset No
		m gauge, m	nonitoring well, aeria	ıl photos, p	revious in	spections),	if available:	
temarks:								

Project/Site: 21199 - Viking Ave NW	(City/Cou	unty:	Poulsbo		Sampling	Date: 02/18	3/22
Applicant/Owner: JKM Holdings, LLC					State: WA	Sampling	Point: S19	
Investigator(s): MK, AR, AH			S	ection, To	wnship, Range: S15, T26	N, R1E		
Landform (hillslope, terrace, etc.): Hillslope		Local r	relief	(concave,	convex, none): None		Slope (%)): <u>10</u>
Subregion (LRR): LRR-A	_ Lat: <u>47</u> °	44'20.5	52"N		Long: 122°39'53.22"W		Datum: W	GS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes			NWI classificat	ion: Non	ne ne	
Are climatic / hydrologic conditions on the site typical for this	time of yea	r? Yes	~	No (If	no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	bed?		Are "Norn	nal Circumstances" preser	ıt? Yes	✓ No	
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	((If needed	, explain any answers in R	.emarks.)		
SUMMARY OF FINDINGS - Attach site map	showing	samp	ling	point lo	ocations, transects,	importa	ant feature	es, etc.
Uhadaankadia Vaasdadian Bassada								
Hydrophytic Vegetation Present? Hydric Soil Present? Yes No Yes				Sampled				
Wetland Hydrology Present? Yes No		W	vithin	a Wetlan	d? Yes No			
Remarks:		<u> </u>						
Out of Wetland F								
VEGETATION – Use scientific names of plant	te							
VEGETATION - Use scientific fiames of plant	Absolute	Domin	ant li	ndicator	Dominance Test works	heet:		
Tree Stratum (Plot size: 5m radius	% Cover	Specie			Number of Dominant Spe			
1. Alnus rubra	10	Y	!	FAC	That Are OBL, FACW, or	r FAC: _	3	(A)
2			<u> </u>		Total Number of Domina		0	
3					Species Across All Strata	a: <u> </u>	3	(B)
7.	10	= Tota		/er	Percent of Dominant Spe That Are OBL, FACW, or		100	(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius						_	100	(٨/٥)
1. Rubus armeniacus	10	Y		FAC	Prevalence Index works		Maritim Ira harr	
2					Total % Cover of: OBL species		Multiply by: – 0	
4					FACW species			_
5.					FAC species			
Ann na dùna		= Tota	al Cov	/er	FACU species	x 4	= 0	_
Herb Stratum (Plot size: 1m radius 1. Phalaris arundinacea	100	Υ		FACW	UPL species			_
2				17.000	Column Totals: 0	(A)	0	(B)
3					Prevalence Index	= B/A = _		
4.					Hydrophytic Vegetation	n Indicato	rs:	
5					Rapid Test for Hydro		getation	
6					Dominance Test is >			
7					Prevalence Index is: Morphological Adapt		rovido auppo	rtina
8					data in Remarks			
9 10					Wetland Non-Vascul			
11.					Problematic Hydroph	, ,	` .	,
Woody Vine Stratum (Plot size: 1m radius	100	= Tota	al Cov	/er	¹ Indicators of hydric soil be present, unless distur			must
1. None	0				Lhadromby#!-			
2					Hydrophytic Vegetation		_	
% Bare Ground in Herb Stratum 0	0	= Tota	al Cov	/er	Present? Yes	✓ No	_	
Remarks:								

Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-15	10YR 2/2	100	-				Sandy Loam	Dry
15-18	10YR 3/6	100					Sandy Clay Loam	Dry
	-		-					
	-							
Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covered	or Coate	ed Sand Gr	ains. ² Lo	cation: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise note	d.)		Indicato	ors for Problematic Hydric Soils ³ :
Histosol	, ,		Sandy Redox (S				_	n Muck (A10)
	oipedon (A2)		Stripped Matrix	. ,	/	MI DA 4\		Parent Material (TF2)
Black Hi	stic (A3) n Sulfide (A4)		Loamy Mucky M Loamy Gleyed M		(except	MLRA 1)		y Shallow Dark Surface (TF12) er (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix					er (Explain in Remarks)
= ·	ark Surface (A12)	50 (7111)	Redox Dark Sur	, ,			³ Indicate	ors of hydrophytic vegetation and
Sandy N	lucky Mineral (S1)		Depleted Dark S	Surface (F7))			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depressi	ons (F8)			unles	ss disturbed or problematic.
	Layer (if present):							
Type:	-1>							
Deptn (in	ches):						Hydric Soil	I Present? Yes No ✔
Remarks:								
VDDOLG	· CV							
YDROLC								
-	drology Indicators		d abaal all that and				0	
		one require	d; check all that appl		(50) (ndary Indicators (2 or more required)
	Water (A1)			ned Leaves	s (B9) (e :	xcept MLR	:A	Vater-Stained Leaves (B9) (MLRA 1, 2,
Saturation	ater Table (A2)		1, 2, 4 <i>F</i>	A, and 4B)				4A, and 4B) Prainage Patterns (B10)
=	` ,			` '	(D40)			• , ,
	larks (B1) nt Deposits (B2)		Aquatic Inv	Sulfide Odo				ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9
_	oosits (B3)		= ' '	hizosphere	` '	Living Poot		Seomorphic Position (D2)
= '	at or Crust (B4)		_	of Reduced	-	•		hallow Aquitard (D3)
	oosits (B5)		=	n Reduced	`	,		AC-Neutral Test (D5)
	Soil Cracks (B6)		_	Stressed P		` ,		taised Ant Mounds (D6) (LRR A)
_	on Visible on Aerial	Imagery (B	_	lain in Rem	•	i) (L ixix A)		rost-Heave Hummocks (D7)
=	Vegetated Concav				iamoj			root ricavo riammooko (57)
ield Obse								
		Yes No	Depth (inches	:):				
Nater Table			Depth (inches					
Saturation F			Depth (inches			Wati	and Hydrolog	y Present? Yes No ✓
includes ca	pillary fringe)							
		m gauge, m	onitoring well, aerial p	photos, pre	vious ins	spections),	if available:	
Remarks:								

Project/Site: 21199 - Viking Ave NW		City/Co	ounty: F	Poulsbo	Sampling Date: 02/18/22
Applicant/Owner: JKM Holdings, LLC					State: WA Sampling Point: S20
Investigator(s): MK, AR, AH			Se	ection, To	ownship, Range: S15, T26N, R1E
					convex, none): None Slope (%): 10
Subregion (LRR): LRR-A	_ Lat: _47°	°44'20.	52"N		Long: 122°39'53.22"W Datum: WGS84
Soil Map Unit Name: Alderwood gravelly sandy loam, 8-	15 percent	slopes	5		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this	s time of yea	ar? Yes	s 🗸	No (If	f no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly distu	rbed?		Are "Norn	mal Circumstances" present? Yes 🗸 No
Are Vegetation, Soil, or Hydrology natura	ally problema	atic?	(1	If needed	, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samp	oling	point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✔ No					
Hydric Soil Present? Yes V No				Sampled	
Wetland Hydrology Present? Yes V No		'	within	a Wetlan	nd? Yes[V] NO[]
Remarks:		•			
In Wetland G near WRGG1					
VEGETATION – Use scientific names of plan	ts.				
Tree Stratum (Plot size: 5m radius	Absolute			dicator	Dominance Test worksheet:
1. None	% Cover 0	Speci	ies?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2					Total Number of Dominant
3					Species Across All Strata: 2 (B)
4	_				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 3m radius	0	= Tot	al Cov	er	That Are OBL, FACW, or FAC: 50 (A/B)
1. Fallopia japonica	25	Υ	F	ACU	Prevalence Index worksheet:
2					Total % Cover of: Multiply by:
3.					OBL species x 1 = _0
4					FACW species 100 x 2 = 200
5					FAC species $x 3 = 0$
Herb Stratum (Plot size: 1m radius	25	= Tot	al Cov	er	FACU species <u>25</u> x 4 = <u>100</u>
1. Phalaris arundinacea	100	Υ	F	ACW	UPL species $x = 5 = 0$ Column Totals: 125 (A) 300 (B)
2.				•	Column Totals: <u>125</u> (A) <u>300</u> (B)
3.					Prevalence Index = $B/A = 2.4$
4					Hydrophytic Vegetation Indicators:
5					Rapid Test for Hydrophytic Vegetation
6					Dominance Test is >50%
7					Prevalence Index is ≤3.0¹
8					Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
9					Wetland Non-Vascular Plants ¹
10 11.					Problematic Hydrophytic Vegetation ¹ (Explain)
	100	= Tot	al Cove	er	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: 1m radius					25 p. 555 r., arrioso distarbod or problematic.
1. None	0	-			Hydrophytic
2	_				Vegetation Present? Yes V No
% Bare Ground in Herb Stratum 0	<u> </u>	= Tot	aı C0V	EI	165 F 140
Remarks:					
Polygonum species is conservatively rated as '	'Facultati\	ve Upl	land".		

Depth	Matrix		Red	ox Feature	20			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks Remarks
0-8	10YR 2/2	100					Silt Loam	
8-16	2.5YR 5/2	90	7.5YR 4/6	10	С	M	Silt Loam	
								·
			-	_				
1		DI	A Deduced Market O			- 1010	21	
			M=Reduced Matrix, C II LRRs, unless other			ed Sand G		cation: PL=Pore Lining, M=Matrix. prs for Problematic Hydric Soils ³ :
Histosol		cable to al	Sandy Redox (ieu.)			n Muck (A10)
	oipedon (A2)		Stripped Matrix				_	Parent Material (TF2)
Black Hi			Loamy Mucky I	. ,	1) (except	MLRA 1)	_	Shallow Dark Surface (TF12)
_	en Sulfide (A4)		Loamy Gleyed			,	= '	er (Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Matrix	x (F3)				
	ark Surface (A12)		Redox Dark Su	` '				ors of hydrophytic vegetation and
= '	Mucky Mineral (S1)		Depleted Dark	,	- 7)			and hydrology must be present,
	Bleyed Matrix (S4)		Redox Depress	sions (F8)			unles	s disturbed or problematic.
Type:	Layer (if present):							
, , ,	nches):						111	P
. `							Hydric Soil	Present? Yes V No
Remarks:								
HYDROLO	OGY							
	OGY rdrology Indicators	::						
Wetland Hy	drology Indicators		ed; check all that app	oly)			Seco	ndary Indicators (2 or more required)
Wetland Hy	drology Indicators		_		es (B9) (e	xcept MLF		ndary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Indi Surface	rdrology Indicators		☐ Water-Sta			xcept MLF		
Wetland Hy Primary Indi Surface	rdrology Indicators cators (minimum of Water (A1) ater Table (A2)		☐ Water-Sta	nined Leav A, and 4E		xcept MLF	RA W	ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio	rdrology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-Sta	nined Leav A, and 4E (B11)	3)	xcept MLF	RA W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-Sta 1, 2, 4 Salt Crust	ined Leav A, and 4E (B11) vertebrate	es (B13)	xcept MLF	RA W	vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Wetland Hy Primary Indi ☐ Surface ☐ High Wa ✓ Saturatio ☐ Water M ☐ Sedimer	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	nined Leaven A, and 4E (B11) avertebrate Sulfide O	es (B13) dor (C1)	xcept MLF	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	nined Leav A, and 4E (B11) overtebrate Sulfide O Rhizosphe	es (B13) dor (C1) eres along	Living Roo	RA W	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicators recators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence	ained Leav A, and 4E (B11) Evertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roo	RA W	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	rdrology Indicators reators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Iro	A, and 4E (B11) (Vertebrate Sulfide O Rhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4 on in Tille	Living Roo 4)	RA W D D S ts (C3) G S)	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one require	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio	rdrology Indicators reators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	And 4EAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present?	one require	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) INVERTED TATE SULFIT OF REDUCT OF REDUCT OF REDUCT OF RESECT PLANT OF RESECT OF RESECT PLANT OF RESECT OF RESECT PLANT OF RESECT OF RESE	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present?	one require Imagery (Bre Surface (Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as):	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6	RA D D D S ts (C3) G G F R	Vater-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)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial by Vegetated Concavervations: ter Present? Present?	Imagery (Be Surface (Yes Nes Nes Nes Nes Nes Nes Nes Nes Nes N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as):	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	ts (C3) G S F F	Vater-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)
Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Star 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex (B8)	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rdrology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aerial y Vegetated Concav rvations: ter Present? Present? Present?	Imagery (Bee Surface (Yes Nes V N	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized I Presence Recent Irc Stunted o Other (Ex	A, and 4E (B11) Invertebrate Sulfide O Rhizosphe of Reduce on Reduce r Stressed plain in Re as): as): 16 Surface	es (B13) dor (C1) eres along ed Iron (C4 on in Tille Plants (D emarks)	Living Roo 4) d Soils (C6 1) (LRR A)	RA D D S ts (C3) G G S) F C And Hydrolog	Vater-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) rost-Heave Hummocks (D7)

Project/Site: 21199 - Viking Ave NW		City/Coun	ty: Poulsbo		Sampling Date: 02/19/2	22
Applicant/Owner: JKM Holdings, LLC				State: WA	Sampling Point: S21	
Investigator(s): MK, AR, AH			Section, To	ownship, Range: S15, T26	ôN, R1E	
Landform (hillslope, terrace, etc.): Hillslope		Local rel	ief (concave,	, convex, none): None	Slope (%):	15
Subregion (LRR): LRR-A	_ Lat: _47°	44'20.52	"N	Long: 122°39'53.22"W	Datum: WG	3S84
Soil Map Unit Name: Alderwood gravel sandy loam, 15-3	30 percent s	slopes		NWI classifica	tion: None	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ır? Yes	No (l	f no, explain in Remarks.)		
Are Vegetation, Soil, or Hydrology signifi	cantly distu	rbed?	Are "Norr	mal Circumstances" preser	nt? Yes No	
Are Vegetation, Soil, or Hydrology natura	lly problema	atic?	(If needed	d, explain any answers in F	Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ng point l	ocations, transects,	important feature	s, etc.
Hydrophytic Vegetation Present? Yes ✔ No						
Hydric Soil Present? Yes No			he Sampled hin a Wetlar		~ ~	
Wetland Hydrology Present? Yes No		WIL	iiii a vvetiai	iu! fes[•] N	<u> </u>	
Remarks:						
Out of Wetland G						
VEGETATION – Use scientific names of plant	ts.					
Francisco			t Indicator	Dominance Test works	sheet:	
Tree Stratum (Plot size: 5m radius 1. None	% Cover 0	Species	? Status	Number of Dominant Sp That Are OBL, FACW, o		(A)
2				Total Number of Domina	ant	
3			<u> </u>	Species Across All Strat	ta: <u>2</u>	(B)
4	0	= Total	Cover	Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size: 3m radius 1. Rubus armeniacus	70	Υ	FAC	Prevalence Index work	rsheet:	
2		-			Multiply by:	
3.					x 1 = 0	
4					x 2 = 0	_
5				FAC species		_
Herb Stratum (Plot size: 1m radius	70	= Total	Cover		x 4 = 0	
Phalaris arundinacea	100	Υ	FACW		x = 0	
2				Column Totals: 0	(A) <u>0</u>	_ (B)
3.				Prevalence Index	= B/A =	
4				Hydrophytic Vegetatio		
5				Rapid Test for Hydro		
6				Dominance Test is >		
7				Prevalence Index is		
8					tations ¹ (Provide support or on a separate sheet)	ing
9				Wetland Non-Vascu	lar Plants ¹	
10		-		Problematic Hydropl	hytic Vegetation¹ (Explair	n)
11 Woody Vine Stratum (Plot size: 1m radius	100	= Total	Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology nrbed or problematic.	nust
1. None	0					-
2.				Hydrophytic Vegetation		
_	0	= Total	Cover		No 🗌	
% Bare Ground in Herb Stratum 0 Remarks:						
romano.						

Depth	Matrix		Podo	x Features		the absence	·
(inches)	Color (moist)	%	Color (moist)		Loc ²	Texture	Remarks
0-15	10YR 3/1	100				Sandy Loam	Damp
15-19+	10YR 4/4	100			_	Sandy Loam	
Hydric Soil Histosol Histic Ep Black His Hydroge Depleted Thick Da Sandy M Sandy G Restrictive Type:	Indicators: (Applie (A1) pipedon (A2)	cable to all	Reduced Matrix, CS LRRs, unless other Sandy Redox (S Stripped Matrix Loamy Mucky M Loamy Gleyed M Depleted Matrix Redox Dark Sur Depleted Dark S Redox Depressi	wise noted.) (S6) (ineral (F1) (exc datrix (F2) (F3) face (F6) surface (F7)		Indicato 2 cm Red Very Othe	Dry cation: PL=Pore Lining, M=Matrix. crs for Problematic Hydric Soils³: Muck (A10) Parent Material (TF2) Shallow Dark Surface (TF12) cr (Explain in Remarks) crs of hydrophytic vegetation and hydrology must be present, s disturbed or problematic. Present? Yes No
Depth (in	ches):					Hydric Soil	Present? Yes No ✓
Remarks:						•	
HYDROLO	GY						
-	drology Indicators						
Primary India	cators (minimum of	one required	d; check all that apply	/)		Secor	ndary Indicators (2 or more required)
_	Water (A1)			ned Leaves (B9)	(except MLR	A W	ater-Stained Leaves (B9) (MLRA 1, 2,
l = -	ter Table (A2)			, and 4B)			4A, and 4B)
Saturation	` '		Salt Crust (rainage Patterns (B10)
_	arks (B1)			ertebrates (B13)		_	ry-Season Water Table (C2)
	nt Deposits (B2)			Sulfide Odor (C1	•		aturation Visible on Aerial Imagery (C9)
_	oosits (B3)		Oxidized R	hizospheres alo	na Livina Doot		D iti (D0)
Algal Ma	it or Crust (B4)						eomorphic Position (D2)
			_	f Reduced Iron	(C4)	SI	nallow Aquitard (D3)
	osits (B5)		Recent Iror	Reduction in T	(C4) illed Soils (C6)	SI D F/	nallow Aquitard (D3) AC-Neutral Test (D5)
Surface	osits (B5) Soil Cracks (B6)		Recent Iron Stunted or	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation	osits (B5) Soil Cracks (B6) on Visible on Aerial		Recent Iron Stunted or Other (Exp	Reduction in T	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5)
Surface Inundation Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav		Recent Iron Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation	osits (B5) Soil Cracks (B6) on Visible on Aerial v Vegetated Concav		Recent Iron Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations:	e Surface (E	Recent Iror Stunted or Other (Exp	n Reduction in T Stressed Plants	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser	osits (B5) Soil Cracks (B6) on Visible on Aerial Vegetated Concav vations: er Present?	e Surface (E	Recent Iror Stunted or Other (Exp 38) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)	(C4) illed Soils (C6) (D1) (LRR A)	SI SI	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser Surface Wate Water Table Saturation P	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present?	e Surface (E Yes No	Recent Iror Stunted or Other (Exp 38) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)	(C4) illed Soils (C6) (D1) (LRR A)	SI F/ R:	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Surface Inundation Inundation Sparsely Field Obser Surface Wat Water Table Saturation P (includes cap Describe Re	osits (B5) Soil Cracks (B6) on Visible on Aerial vegetated Concav vations: er Present? Present? resent? pillary fringe)	e Surface (E Yes	Recent Iror Stunted or Other (Exp 88) Depth (inches Depth (inches	n Reduction in T Stressed Plants lain in Remarks)):):):):	(C4) illed Soils (C6) (D1) (LRR A) Wetla	SI Fr	nallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)

APPENDIX B:

WETLAND RATING FORMS AND FIGURES

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A	Date of site visit: $\frac{02/18}{22}$
Rated by MK	Trained by Ecology? ✔ YesNo Date of training 3/15
HGM Class used for rating DEPRESSION	VAL Wetland has multiple HGM classes? Y ✓ N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). Ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	III (based on functions ✓ or special characteristics)

1. Category of wetland based on FUNCTIONS

 Category I — Total score = 23 - 27
 _Category II - Total score = 20 - 22
 _Category III - Total score = 16 - 19
 _Category IV – Total score = 9 - 15

FUNCTION		nprov ter Qı	_	H	ydrolo	ogic	ŀ	labita	it	
					Circle	the ap	propri	ate ra	tings	
Site Potential	Н	M	L	Н	М	L	Н	M	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			3			7		17

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	V

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	1
Hydroperiods	D 1.4, H 1.2	1
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	1
Map of the contributing basin	D 4.3, D 5.3	2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	4

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

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?

The wetland is on a slope (*slope can be very gradual*),

_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,

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.

Wetland Rating System	for Western	WA: 2014	Update
Rating Form - Effective	January 1 2	015	

DEPRESSIONAL AND FLATS WETLANDS Water Quality Functions Indicators that the site functions to improve	water quality	
Water Quality Functions - Indicators that the site functions to improve D 1.0. Does the site have the potential to improve water quality?	water quality	
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving	it (no outlet).	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flo	points = 3	1
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch	ng points = 1 n. points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions		0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area Wetland has persistent, ungrazed plants < ¹ / ₁₀ of area	cowardin classes): points = 5 points = 3 points = 1 points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	2
Total for D 1 Add the points in t	he boxes above	6
	rating on the first po	ige
D 2.0. Does the landscape have the potential to support the water quality function of the si	to?	
	Yes = 1 No = 0	0
	Yes = 1 No = 0	0
	Yes = 1 No = 0	_
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions		1
	Yes = 1 No = 0	0
Total for D 2 Add the points in t	he boxes above	1
Rating of Landscape Potential If score is:3 or 4 = Hv_1 or 2 = M0 = L Record	I the rating on the fi	rst page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water 303(d) list?	that is on the Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water question if there is a TMDL for the basin in which the unit is found)?	yes = 2 No = 0	2
Total for D 3 Add the points in t	he boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating of	n the first page	

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradati	on
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	0
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5	3
Total for D 4 Add the points in the boxes above Rating of Site Potential If score is: 12-16 = H 6-11 = M ✓ 0-5 = L Record the rating on the	first nage
	jirst page
D 5.0. Does the landscape have the potential to support hydrologic functions of the site? D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at	0
>1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0
Total for D 5 Add the points in the boxes above	0
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on the	first page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):	0
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N_0 = 0}{N}$	0
Total for D 6 Add the points in the boxes above	0

Rating of Value If score is: ____2-4 = H _____1 = M _____0 = L

Record the rating on the first page

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 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 bedAquatic bed 4 structures or more: points = 4Emergent 3 structures: points = 2Y Scrub-shrub (areas where shrubs have > 30% cover)	2
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 inundatedSeasonally flooded or inundatedOccasionally flooded or inundatedSaturated onlyPermanently flowing stream or river in, or adjacent to, the wetlandSeasonally flowing stream in, or adjacent to, the wetlandLake Fringe wetlandLake Fringe wetlandFreshwater tidal wetland	2
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 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	0

Wetland name or number **A**

	T	
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. <i>The number of checks is the r</i>	number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants exter	nds at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for den		4
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have r	not yet weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in ar	reas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (s	ee H 1.1 for list of	
Strata) Total for H 1 Add the point	ts in the hoves above	0
·	ts in the boxes above	9
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	Record the rating on th	ne first page
H 2.0. Does the landscape have the potential to support the habitat functions of the sit	te?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat 18 + [(% moderate and low intensity land uses	s)/2] <u>13</u> = <u>30</u> %	
If total accessible habitat is:		
\sim > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	·	
Calculate: % undisturbed habitat 26 + [(% moderate and low intensity land uses	s)/2] 18 = 44 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
Undisturbed habitat 10-50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points c	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	U
	ts in the boxes above	3
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M 1-3 = M 1-4 = L	Record the rating on the	_
10 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- Necora the rating on the	- Jii st 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? Choose of	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 or animal on the	e state or federal lists)	
It is mapped as a location for an individual WDFW priority species		2
It is a Wetland of High Conservation Value as determined by the Department of Natu		
It has been categorized as an important habitat site in a local or regional comprehen	sive 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	points = 1	
	·	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: \checkmark 2 = H1 = M0 = L	Record the rating on t	ne 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 (<i>full descriptions in WDFW PHS report</i>).
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 we 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, andesit 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.

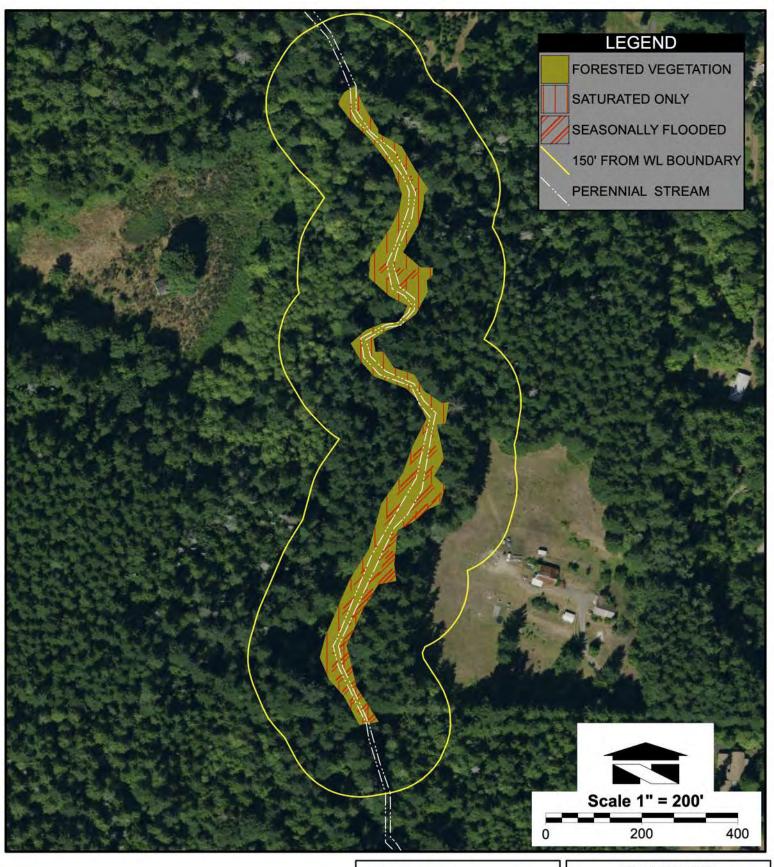
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Mathemat Times	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	
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?	Cat. I
Yes = Category I No - Go to SC 1.2	
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)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	Cot 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	Cat. I
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	Cat. I
plant species in Table 4 are present, the wetland is a bog.	cut. 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 1 contiguous acre of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.	
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).	
<u> </u>	Cot I
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)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	
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	Cat. II
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-	Cut. 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	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
	C-4 !!
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	N/A
If you answered No for all types, enter "Not Applicable" on Summary Form	1

Wetland name or number	
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND A



Wetland Resources, Inc.

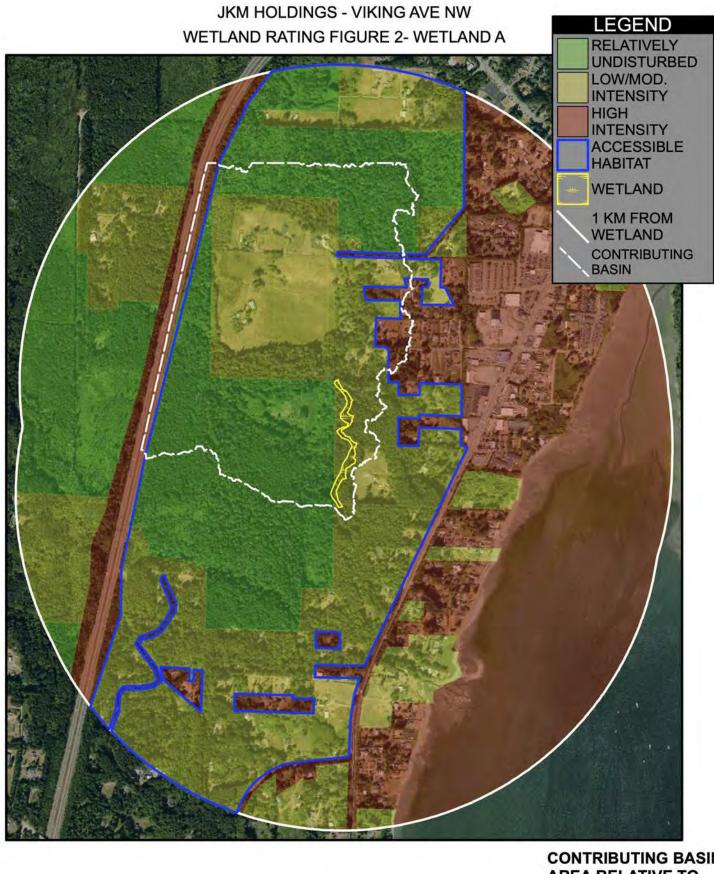
Delineation / Mittation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

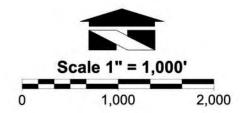
Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure A-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371





9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

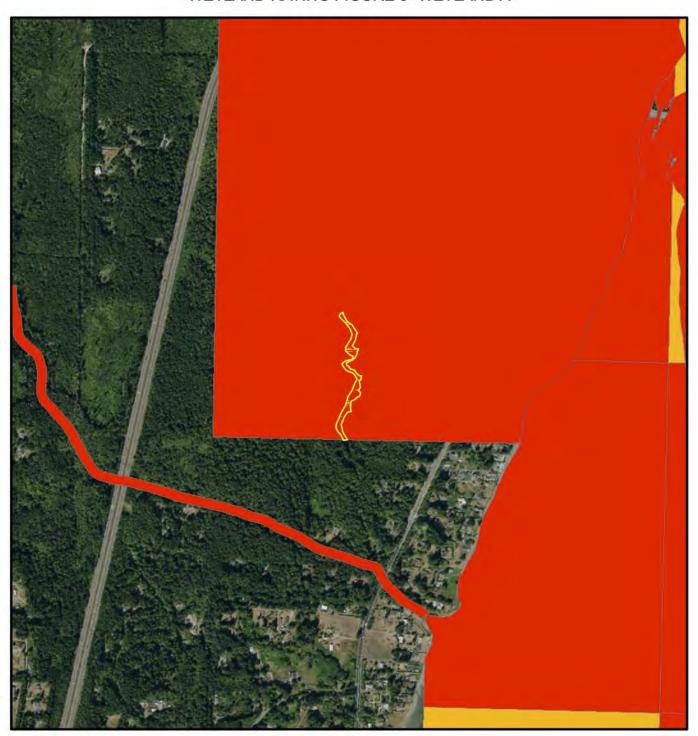
Email: mailbox@wetlandresources.com

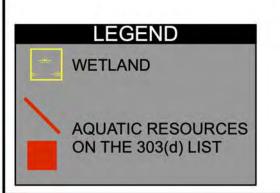
CONTRIBUTING BASIN AREA RELATIVE TO WETLAND UNIT IS 99:1

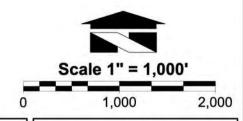
WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Figure A-2 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND A







Delineation / Militation / Pestoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland A

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure A-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B	Date of site visit: $\frac{02/18}{22}$
Rated by MK	Trained by Ecology? 🗹 YesNo Date of training 3/15
HGM Class used for rating DEPRESSIOI	NAL Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). Ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	[(based on functions or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I − Total score = 23 - 27

Category II − Total score = 20 - 22

Category III − Total score = 16 - 19

Category IV − Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic			Habitat				
					Circle	the ap	propi	riate ra	tings	
Site Potential	Н	M	L	Н	М	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			6		18

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/

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	1
Hydroperiods	D 1.4, H 1.2	1
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	1
Map of the contributing basin	D 4.3, D 5.3	2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
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	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	4

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
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)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

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;

 $\underline{\mbox{At least }30\%}$ 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?

_The wetland is on a slope (slope can be very gradual),

_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,

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.

Wetland name or number Wetland B

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.

DEPRESSIONAL AND FLATS WETLANDS		
Water Quality Functions - Indicators that the site functions to improve	water quality	
D 1.0. Does the site have the potential to improve water quality?		I
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving	g it (no outlet). points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	owing outlet. points = 2	3
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditc	h. points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions		0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants > 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	cowardin classes): points = 5 points = 3 points = 1 points = 0	3
D 1.4. Characteristics of seasonal ponding or inundation:	.	
This is the area that is ponded for at least 2 months. See description in manual. Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	4
Total for D 1 Add the points in t	the boxes above	10
	rating on the first pa	
D 2.0. Does the landscape have the potential to support the water quality function of the s	ite?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	1
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions Source	D 2.1-D 2.3? Yes = 1 No = 0	0
Total for D 2 Add the points in t	the boxes above	2
Rating of Landscape Potential If score is:3 or 4 = H 1 or 2 = M0 = L Record	d the rating on the fir	rst page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water 303(d) list?	that is on the Yes = 1 No = 0	1
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list?	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quif there is a TMDL for the basin in which the unit is found)?	uality (answer YES Yes = 2 No = 0	2
Total for D 3 Add the points in t	the boxes above	4
Rating of Value If score is: 2-4 = H		-

DEPRESSIONAL AND FLATS WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	ion	
D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	4	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland wetland is flat but has small depressions on the surface that trap water Marks of ponding less than 0.5 ft (6 in) points = 0	3	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin contributing surface water to the wetland to the area of the wetland unit itself. ☐ The area of the basin is less than 10 times the area of the unit ☐ The area of the basin is 10 to 100 times the area of the unit ☐ The area of the basin is more than 100 times the area of the unit ☐ Entire wetland is in the Flats class ☐ points = 5 ☐ Entire wetland is in the Flats class	3	
Total for D 4 Add the points in the boxes above	10	
Rating of Site Potential If score is: 12-16 = H 6-11 = M 0-5 = L Record the rating on the	first page	
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?		
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0	
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	0	
Total for D 5 Add the points in the boxes above	1	
Rating of Landscape Potential If score is: 3 = H v 1 or 2 = M 0 = L Record the rating on the	first page	
D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): ■ Flooding occurs in a sub-basin that is immediately down-gradient of unit. points = 2 ■ Surface flooding problems are in a sub-basin farther down-gradient. points = 1 ■ Flooding from groundwater is an issue in the sub-basin. points = 1 ■ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 ■ There are no problems with flooding downstream of the wetland. points = 0	0	
D 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	0	
Total for D 6 Add the points in the boxes above	0	

Rating of Value If score is: ____2-4 = H _____1 = M _____0 = L

Record the rating on the first page

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 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 bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 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	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 < 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number Wetland B

		1
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The second of the se	he number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in o	diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/o		
over a stream (or ditch) in, or contiguous with the wetla		
Stable steep banks of fine material that might be used by	= : = =	3
slope) OR signs of recent beaver activity are present (cut where wood is exposed)	t shrubs or trees that have not yet weathered	
At least ¼ ac of thin-stemmed persistent plants or woody	hranches are present in areas that are	
permanently or seasonally inundated (structures for egg	•	
strata)	, , , , , , , , , , , , , , , , , , , ,	
Total for H 1	Add the points in the boxes above	7
Rating of Site Potential If score is: 15-18 = H 7-14 = M	_O-6 = L Record the rating on t	he first page
H 2.0. Does the landscape have the potential to support the ha	abitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts we	tland unit).	
Calculate: % undisturbed habitat 21 + [(% moderate	and low intensity land uses)/2] $\frac{12}{2}$ = $\frac{33}{6}$ %	
If total accessible habitat is:		
\sum > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 2	
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat 25 + [(% moderate		
Undisturbed habitat > 50% of Polygon	points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	
Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon	points = 1 points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points – o	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	U
Total for H 2	Add the points in the boxes above	3
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M		
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, regula that applies to the wetland being rated.	ations, or policies? Choose only the highest score	
Site meets ANY of the following criteria:	points = 2	
It has 3 or more priority habitats within 100 m (see next p	•	
It provides habitat for Threatened or Endangered species		
It is mapped as a location for an individual WDFW priority		1
It is a Wetland of High Conservation Value as determined	•	-
It has been categorized as an important habitat site in a lo		
Shoreline Master Plan, or in a watershed plan		
Site has 1 or 2 priority habitats (listed on next page) within 10	0 m points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: 2 = H 1 = M 0 = L	Record the rating on t	he first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

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/)

	ant how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is ependent 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 (<i>full descriptions in WDFW PHS report</i>).
	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
V	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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
	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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
	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.
V	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.

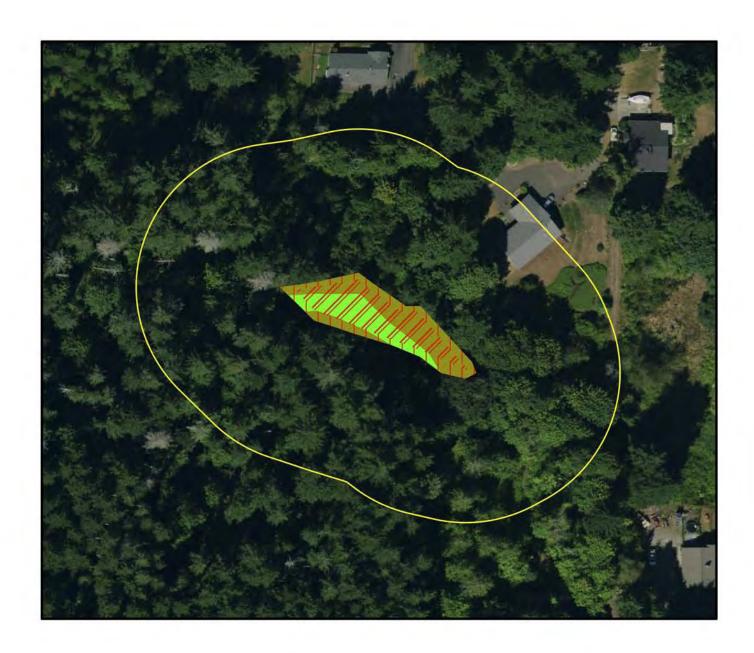
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

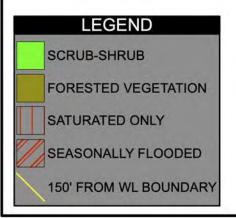
CATEGORIZATION DASED ON SPECIAL CHARACTERISTICS	C .
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
The dominant water 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 <i>Spartina</i> , 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. 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	Cat. 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	
100 10 11 11 11 11 11 11 11 11 11 11 11	

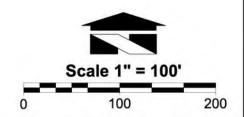
SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.	
Old-growth forests (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).	
	Cat I
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)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	
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	Cat. II
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	cat. II
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed 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	Cat I
Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109	Cati
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
100 00 to 00 012	
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
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	
3 ,	Cat. IV
Category of wetland based on Special Characteristics	N/A
If you answered No for all types, enter "Not Applicable" on Summary Form	,,,

Wetland name or number	
	This page left blank intentionally

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND B







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

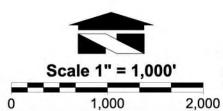
WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure B-1 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND B



RELATIVELY UNDISTURBED LOW/MOD. INTENSITY HIGH INTENSITY ACCESSIBLE HABITAT WETLAND 1 KM FROM WETLAND CONTRIBUTING BASIN



CONTRIBUTING BASIN AREA RELATIVE TO WETLAND UNIT IS 11:1

Wetland Resources, Inc.

Defineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

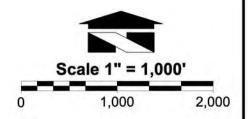
WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure B-2 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND B







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland B

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure B-3 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland C	Date of site visit: 02/18/22
Rated by MK	Trained by Ecology? 🗹 Yes No Date of training 3/15
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	IV (based on functions ✓ or special characteristics)
1. Category of wetland based on F	UNCTIONS

 _Category I — Total score = 23 - 27
 _Category II – Total score = 20 - 22
 _Category III – Total score = 16 - 19
 _Category IV — Total score = 9 - 15

FUNCTION		nprov ter Q	ing uality	Hydrologic Habitat		at				
					Circle	the ap	propr	iate ro	ntings	
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	M	L	TOTAL
Score Based on Ratings		6			4			5		15

Score for each function based on three ratings (order of ratings is not important) 9 = H,H,H 8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	V	

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (slope can be very gradual),

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,

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.

TA7 .1 1			1	
Wetland	name	or	number	C

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	3
Slope is > 1%-2% points = 2	J
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.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = 6 Dense, uncut, herbaceous plants > ½ of area points = 3	0
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	
Rating of Site Potential If score is: 12 = H 6-11 = M 2 0-5 = L Record the rating on a	3
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? Yes = 1 No = 0	1
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	<u> </u>
Total for S 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: <u>v</u> 1-2 = M0 = L Record the rating on a	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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating on a	the first page

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: 1 = M v 0 = L Record the rating on	0 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L Record the rating on a	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream Points = 0	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	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 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 bedAquatic bedStructures or more: points = 4Emergent 3 structures: points = 2Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1	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	0
H 1.3. Richness of plant species 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 5 - 19 species points = 1	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	0

Wetland name or number **C**

	1
H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
_✓ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	2
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	2
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 amphibians)	
✓ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	
Total for H 1 Add the points in the boxes above	3
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 13 = 30 %	
If total accessible habitat is:	
1	
$ > \frac{1}{3} (33.3\%) \text{ of 1 km Polygon} $ points = 3	2
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $\frac{21}{2}$ + [(% moderate and low intensity land uses)/2] $\frac{16}{2}$ = $\frac{36}{2}$ %	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	1
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
	0
✓ ≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	3
Rating of Landscape Potential If score is:4-6 = H<1-3 = M<1 = L Record the rating on the	ie jirst 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? 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 or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species	1
It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	*
It has been categorized as an important habitat site in a local or regional comprehensive 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	
Site does not meet any of the criteria above points = 0	the first reser
Rating of Value If score is: 2 = H 1 = M 0 = L Record the rating on	uie jirst page

TAT .1 1			1	_
Wetland	name	or	number	C

WDFW Priority Habitats

Priority habitats listed by WDFW (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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 web 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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

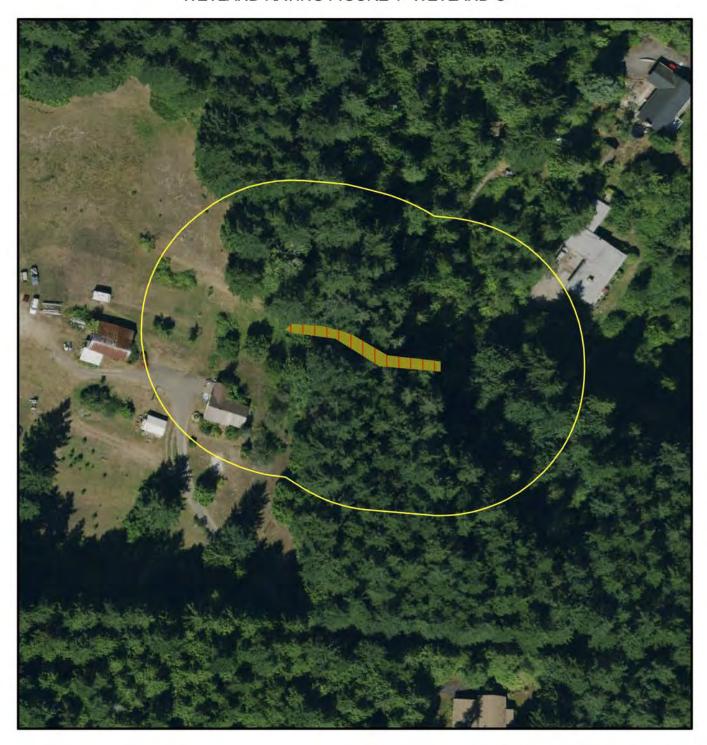
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
The dominant water regime is tidal,	
Vegetated, and	
With a salinity greater 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	Cat. I
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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	
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 1 contiguous acre of forest that meets one of these criteria for the WA	ı
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>	1
the wetland based on its functions. 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).	1
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)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	
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).	Cat. II
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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:	1
Long Beach Peninsula: Lands west of SR 103	
Grayland-Westport: Lands west of SR 105	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	1
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	1
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?	1
Yes = Category III No = Category IV	Cat. IV
Category of wetland based on Special Characteristics	
If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

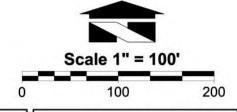
Wetland name or nu	ımber
--------------------	-------

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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND C







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

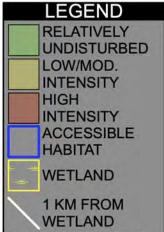
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure C-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

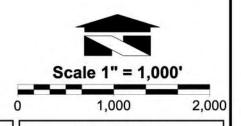
JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND C





CONTRIBUTING

BASIN



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

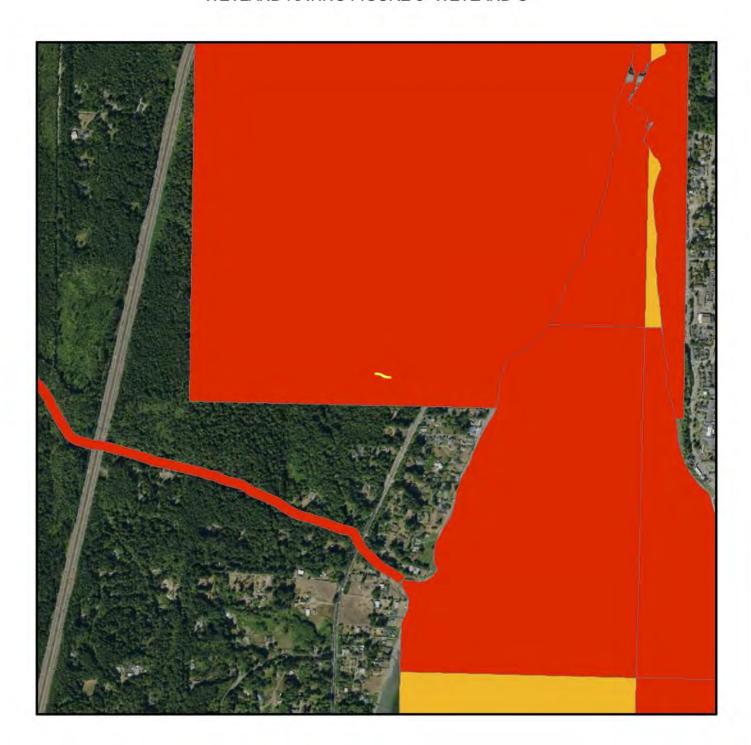
Fax: (425) 337-3045

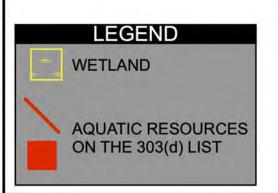
Email: mailbox@wetlandresources.com

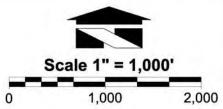
WETLAND RATING Wetland C

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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND C







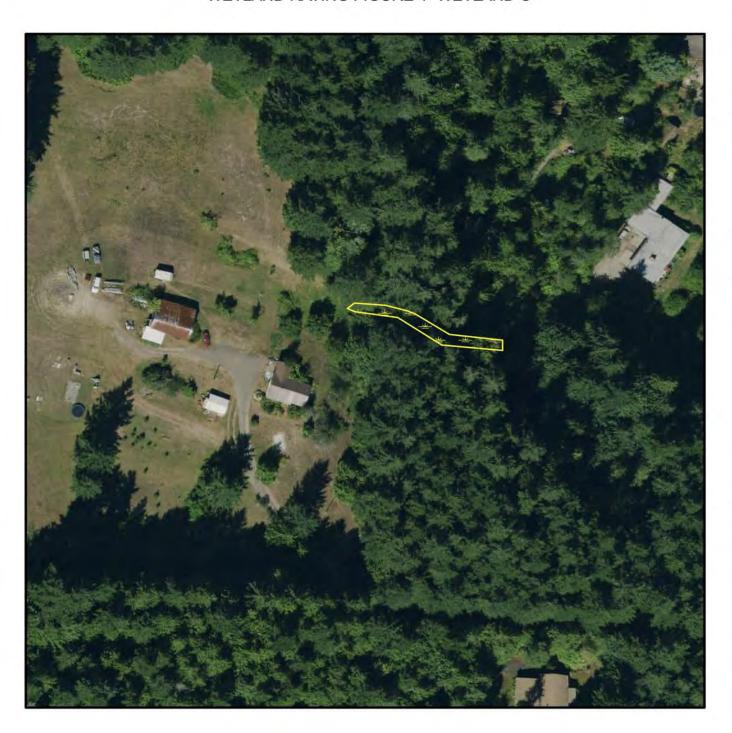
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

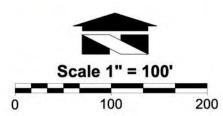
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND C







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland C

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

n Figure C-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland D	Date of site visit: $\frac{U2/18}{22}$
Rated by MK	Trained by Ecology? 🗹 YesNo Date of training 3/15
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u> ✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined). ap Kitsap County GIS
OVERALL WETLAND CATEGORY _	IV _ (based on functions ✓ or special characteristics)
1. Category of wetland based on F	:UNCTIONS

 _Category I – Total score = 23 - 27
 _Category II - Total score = 20 - 22
 _Category III – Total score = 16 - 19
 _Category IV — Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic		Habitat					
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	М	L	Н	М	L	Н	М	L	
Landscape Potential	Н	М	L	Н	М	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	M	L	TOTAL
Score Based on Ratings		6			3			6		15

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	'	

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 polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 uni	t is i	n a v	alley, o	r stream	channel,	where i	t gets	inundat	ted by	overba	nk flo	oding	from	tha
stream	or ri	iver,												
			_		-		_							

___The overbank flooding occurs at least once every 2 years.

Wetland n	ame or r	number	D
-----------	----------	--------	---

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 Slope is > 1%-2% Slope is > 2%-5% points = 1	0
Slope is greater than 5% points = 0 Slope is greater than 5% points = 0 Slope is greater than 5% points = 0 Slope is greater than 5%	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 S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:	U
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. 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 > ½ of area Dense, uncut, herbaceous plants > ½ of area Does not meet any of the criteria above for plants points = 0	3
Total for S 1 Add the points in the boxes above	3
Rating of Site Potential If score is: 12 = H 6-11 = M 0-5 = L Record the rating on the state of	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? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No = 0	0
Total for S 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is:0 = L	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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating on t	the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream eros	ion
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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is:1 = Mv_0 = L Record the rating on	0 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 surface runoff? Yes = 1 No = 0	0
Rating of Landscape Potential If score is:1 = Mv_0 = L	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N_0}{N_0}$	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % 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
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 Seasonally flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland Freshwater tidal wetland 2 points 2 points	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 5 - 19 species points = 1	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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **D**

Check the habitat features that are present in the wetland. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree 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 are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1	3
·	8
Rating of Site Potential If score is:15-18 = H	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 16 + [(% moderate and low intensity land uses)/2] 12 = 28 % 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 points = 1 > 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 14 = 31 % 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 points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0 H 2.3. Land use intensity in 1 km Polygon: If	1
> 50% of 1 km Polygon is high intensity land use points = (-2) ≤ 50% of 1 km Polygon is high intensity points = 0	-2
Total for H 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M < 1 = L Record the rating on the	ne 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 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 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 Natural Resources It has been categorized as an important habitat site in a local or regional comprehensive 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 points = 1 Site does not meet any of the criteria above points = 0 Rating of Value If score is: 2 = H 1 = M 0 = L	1 the first page

Wetland name or number D	
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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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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

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 <i>Spartina</i> , see page 25)	Cat. I
At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
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	
tes category:	
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	6-4-1
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	
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 <u>on top of a lake or</u> 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	

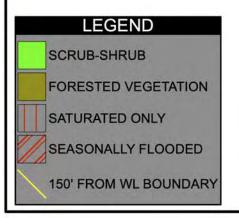
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>	1	
the wetland based on its functions. Old-growth forests (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).	1	
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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
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:	1	
Long Beach Peninsula: Lands west of SR 103		
Grayland-Westport: Lands west of SR 105	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	1	
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	1	
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?	1	
Yes = Category III No = Category IV	Cat. IV	
Category of wetland based on Special Characteristics		
If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

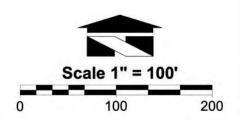
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND D







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure D-1 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND D



LEGEND

RELATIVELY UNDISTURBED LOW/MOD. INTENSITY HIGH INTENSITY **ACCESSIBLE**

HABITAT WETLAND

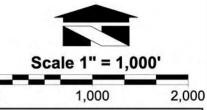
1 KM FROM WETLAND CONTRIBUTING BASIN



Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

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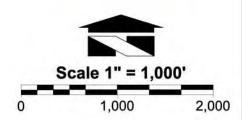
WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure D-2 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND D







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

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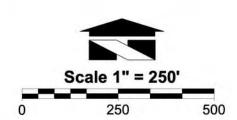
WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure D-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND D







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

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WETLAND RATING Wetland D

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V n Figure D-4 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland E	Date of site visit: $\frac{02/18}{22}$
Rated by MK& AH	Trained by Ecology? 🗹 Yes No Date of training 3/15
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N
NOTE: Form is not complete with Source of base aerial photo/ma	out the figures requested (figures can be combined).
OVERALL WETLAND CATEGORY _	Ⅲ (based on functions ✓ or special characteristics)

1. Category of wetland based on FUNCTIONS

 Category I — Total score = 23 - 27
 _Category II - Total score = 20 - 22
 _Category III - Total score = 16 - 19
 _Category IV – Total score = 9 - 15

FUNCTION		nprov ter Qı	_	H	ydrolo	ogic		Habit	at	
					Circle	the ap	propr	iate ro	itings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	M	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			5		17

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants (can be added to figure above)	S 4.1	5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (slope can be very gradual),

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,

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.

Wetland name or number E

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 Slope is > 1%-2% Slope is > 2% 5%	0
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	
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. 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 Dense, uncut, herbaceous plants > ¼ of area Does not meet any of the criteria above for plants points = 0	6
Total for S 1 Add the points in the boxes above	6
Rating of Site Potential If score is: 12 = H <u>v</u> 6-11 = M0-5 = L Record the rating on the second secon	· ·
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? 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? Other sources Yes = 1 No = 0 Total for S 2 Add the points in the boxes above	1 0
Rating of Landscape Potential If score is: <u>v</u> 1-2 = M0 = L	
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 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	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the rating on the score is: v 2-4 = H 1 = M	he first page

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream 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 appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > \frac{1}{8} \) in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: \(\nabla \) 1 = M \(\nabla \) 0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	1	
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = 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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N}{N} = 0$	0	
Total for S 6 Add the points in the boxes above	0	
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page	

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bedAquatic bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 Seasonally flooded or inundated Occasionally flooded or inundated Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Lake Fringe wetland 2 points	0
Freshwater tidal wetland 2 points 2 points	
H 1.3. Richness of plant species 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 5 - 19 species points = 1	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 All three diagrams in this row are HIGH = 3points	

Wetland name or number **E**

H 1.5. Special habitat features:				
Check the habitat features that are present in the wetland. <i>The number of checks is the number of che</i>	f points.			
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).				
Standing snags (dbh > 4 in) within the wetland				
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at lea	ıst 3.3 ft (1 m)			
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)				
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 3	_	0		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet w	eatnerea			
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 amphibians)	for list of			
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 strata)	jor list oj			
Total for H 1 Add the points in the	boxes above	3		
	rd the rating on th	ie jirst page		
H 2.0. Does the landscape have the potential to support the habitat functions of the site?				
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).				
Calculate: % undisturbed habitat 19 + [(% moderate and low intensity land uses)/2] 11	= <u>30</u> %			
If total accessible habitat is:				
\sim > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2		
20-33% of 1 km Polygon	points = 2			
10-19% of 1 km Polygon	points = 1			
< 10% of 1 km Polygon	points = 0			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.				
Calculate: % undisturbed habitat 20 + [(% moderate and low intensity land uses)/2] 13	= 33 %			
Undisturbed habitat > 50% of Polygon	points = 3	1		
Undisturbed habitat 10-50% and in 1-3 patches	points = 2			
Undisturbed habitat 10-50% and > 3 patches	points = 1			
Undisturbed habitat < 10% of 1 km Polygon	points = 0			
H 2.3. Land use intensity in 1 km Polygon: If	·			
	points = (- 2)	-2		
≤ 50% of 1 km Polygon is high intensity	points = 0	-2		
Total for H 2 Add the points in the		1		
Rating of Landscape Potential If score is:4-6 = H < 1 = L Record	the rating on 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 policies? <i>Choose only the I</i>	nighest 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)	, l			
It provides habitat for Threatened or Endangered species (any plant or animal on the state or	tederal lists)			
It is mapped as a location for an individual WDFW priority species		1		
It is a Wetland of High Conservation Value as determined by the Department of Natural Reso				
It has been categorized as an important habitat site in a local or regional comprehensive 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	points = 1			
	•			
Site does not meet any of the criteria above	points = 0	a o finat a		
Rating of Value If score is: 2 = H 1 1 = M 0 = L Recor	rd the rating on th	ne Jirst page		

Wetland name or number E	E
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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 (<i>full descriptions in WDFW PHS report</i>).
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 we 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

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	Cat. I
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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	
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	

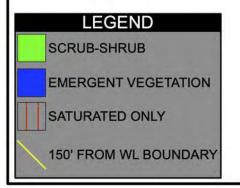
SC 4.0. Forested Wetlands		
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA		
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions.		
Old-growth forests (west 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)	Cat. I	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon		
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).	Cat. II	
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-		
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	Cat I	
Ocean Shores-Copalis: Lands west of SR 115 and SR 109		
Yes – Go to SC 6.1 No = not an interdunal wetland for rating		
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	
Catagony of watland hazad on Special Characteristics	Cut. IV	
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A	

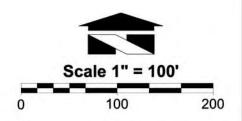
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND E







Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

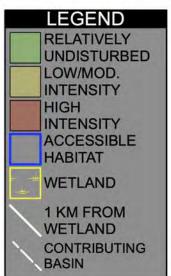
WETLAND RATING Wetland E

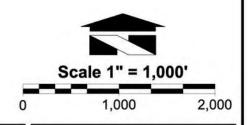
JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure E-1 WRI Job # 21199 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND E







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

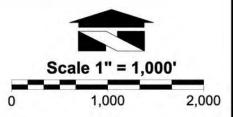
WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure E-2 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND E







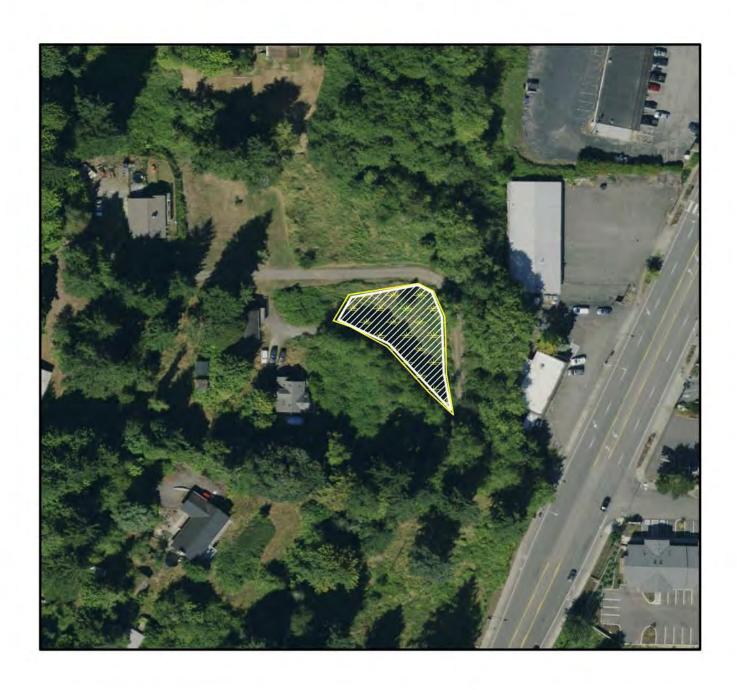
9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

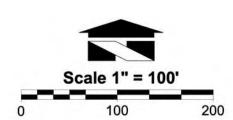
Email: mailbox@wetlandresources.com

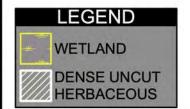
WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure E-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND E







Delineation / Mittation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland E

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure E-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland F	Date of site visit: <u>02/18</u> /22	
Rated by MK	Trained by Ecology? 🗹 YesNo Date of training 3/15_	
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y <u>✓</u> N	
NOTE: Form is not complete without Source of base aerial photo/ma	put the figures requested (figures can be combined). p Kitsap County GIS	
OVERALL WETLAND CATEGORY _	[[] (based on functions C or special characteristics)	

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27				
Category II - Total score = 20 - 22				
	_Category III - Total score = 16 - 19			
	_Category IV – Total score = 9 - 15			

FUNCTION	Improving Water Quality		H	ydrolo	ogic	Habitat				
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	H	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			5			5		17

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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	V		

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	_
(can be added to figure above)		5
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 get	s inundated by overbank flooding from that
stream or river,	

___The overbank flooding occurs at least once every 2 years.

Wetland name or number F	:
--------------------------	---

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	lity
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 =	
Slope is > 2%-5% points =	
Slope is greater than 5% points =	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3	<u>= 0</u> 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 high	her
than 6 in.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = Dense, uncut, herbaceous plants > ½ of area points =	
Dense, woody, plants > ½ of area points =	
Dense, uncut, herbaceous plants > ¼ of area points =	
Does not meet any of the criteria above for plants points =	
Total for S 1 Add the points in the boxes above	
	og 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? $Yes = 1$ No =	0 1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No =	0
Total for S 2 Add the points in the boxes above	ve 1
	g 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?	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 on the 303(d) list. Yes = 1 No =	
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer if there is a TMDL for the basin in which unit is found.</i> Yes = 2 No =	
Total for S 3 Add the points in the boxes above	ve 4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the ratin	g on the first page

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions Rating of Site Potential If score is: 1 = M 0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L Record the rating on a	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	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	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 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 bedAquatic bed4 structures or more: points = 4Emergent3 structures: points = 2Scrub-shrub (areas where shrubs have > 30% cover)2 structures: points = 1	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	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 points = 1 c 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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **F**

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	1
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 are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	
Total for H 1 Add the points in the boxes above	4
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat $\underline{19} + [(\% \text{ moderate and low intensity land uses})/2] \underline{11} = \underline{29} \%$	
If total accessible habitat is:	
	2
	2
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $\frac{19}{}$ + [(% moderate and low intensity land uses)/2] $\frac{13}{}$ = $\frac{32}{}$ %	
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches points = 2	-
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1 km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 4-6 = H 1-3 = M 1-3 = M Record the rating on the	ne 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 policies? <i>Choose only the highest score</i>	
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 or animal on the state or federal lists)	
It is mapped as a location for an individual WDFW priority species	4
It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	1
It has been categorized as an important habitat site in a local or regional comprehensive 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	
Site does not meet any of the criteria above points = 0	
Rating of Value If score is: 2 = H V 1 = M 0 = L Record the rating on the criteria above	the first page

Wetland Rating System for Western WA: 2014 Update Rating Form – Effective January 1, 2015

Wetland name or number F	
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WDFW Priority Habitats

Priority habitats listed by WDFW (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/)

ittp://warw.wa.gov/conscrvation/pns/nst/
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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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

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

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)	Cat. I
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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? 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	

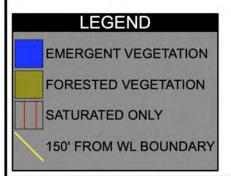
SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>	
the wetland based on its functions. Old-growth forests (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)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	
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).	Cat. II
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
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	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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
Catagony of wetland based on Special Characteristics	Cat. IV
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

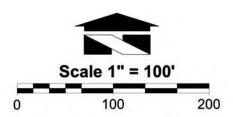
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND F







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 V Puyallup, WA 98371

n Figure F-1 WRI Job # 21199 Rated by: AH

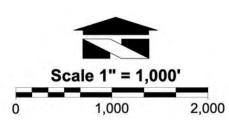
JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND F





WETLAND

1 KM FROM WETLAND CONTRIBUTING **BASIN**



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

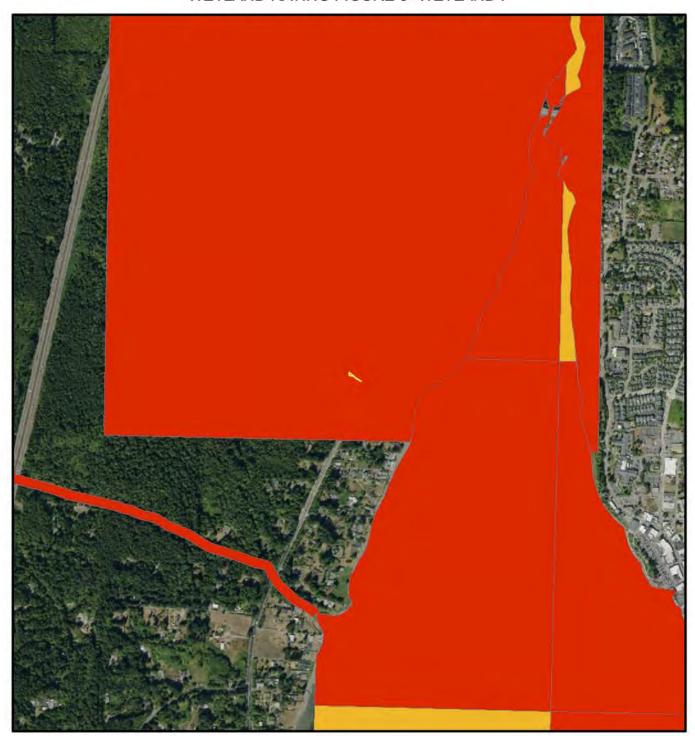
Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

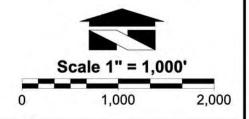
WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure F-2 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND F







9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

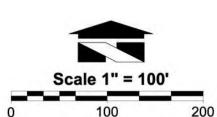
Email: mailbox@wetlandresources.com

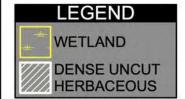
WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure F-3 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND F







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Email: mailbox@wetlandresources.com

WETLAND RATING Wetland F

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 Puyallup, WA 98371

n Figure F-4 WRI Job # 21199 Rated by: AH

RATING SUMMARY – Western Washington

Name of wetland (or ID #): WETLAND G	Date of site visit: $\frac{02/18}{22}$
Rated by MK & AH	Trained by Ecology? 🗹 YesNo Date of training 3/15_
HGM Class used for rating SLOPE	Wetland has multiple HGM classes?Y N
NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map Kitsap County GIS	
OVERALL WETLAND CATEGORY III (based on functions \checkmark or special characteristics)	

1. Category of wetland based on FUNCTIONS

 Category I – Total score = 23 - 27
 _Category II - Total score = 20 - 22
 Category III - Total score = 16 - 19
 Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality			Hydrologic			Habitat			
					Circle	the ap	propr	iate ra	itings	
Site Potential	Н	M	L	Н	M	L	Н	М	L	
Landscape Potential	Н	M	L	Н	М	L	Н	M	L	
Value	Н	М	L	Н	М	L	Н	М	L	TOTAL
Score Based on Ratings		7			4			5		16

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L 5 = M,M,L4 = M, L, L3 = 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		/	

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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	5
(can be added to figure above)		3
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and undisturbed habitat		2
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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?

The wetland is on a slope (*slope can be very gradual*),

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,

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 uni	t is i	n a v	alley, o	r stream	channel,	where i	t gets	inundat	ted by	overba	nk flo	oding	from	tha
stream	or ri	iver,												
			_		-		_							

___The overbank flooding occurs at least once every 2 years.

Wetland name or number G	
---------------------------------	--

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	lity
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 =	
Slope is > 2%-5% points =	
Slope is greater than 5% points =	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3	<u>= 0</u> 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 high	her
than 6 in.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = Dense, uncut, herbaceous plants > ½ of area points =	
Dense, woody, plants > ½ of area points =	
Dense, uncut, herbaceous plants > ¼ of area points =	
Does not meet any of the criteria above for plants points =	
Total for S 1 Add the points in the boxes above	
	og 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? $Yes = 1$ No =	0 1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Yes = 1 No =	0
Total for S 2 Add the points in the boxes above	ve 1
	g 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?	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 on the 303(d) list. Yes = 1 No =	
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer if there is a TMDL for the basin in which unit is found.</i> Yes = 2 No =	
Total for S 3 Add the points in the boxes above	ve 4
Rating of Value If score is: v 2-4 = H 1 = M 0 = L Record the ratin	g on the first page

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: ✓ 1 = M0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	0
Rating of Landscape Potential If score is:1 = Mv_0 = L	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: 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) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream points = 0	0
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = $2 \frac{N_0}{N_0}$	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = M 0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of % ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bedAquatic bedEmergentScrub-shrub (areas where shrubs have > 30% cover)Forested (areas where trees have > 30% cover)If the unit has a Forested class, check if: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 ——Y 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	0
Freshwater tidal wetland 2 points 2 points	
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . 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 5 - 19 species points = 1	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 All three diagrams in this row are HIGH = 3points	1

Wetland name or number **G**

		1
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the number	of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
_ ✓ Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at le	east 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for denning (>	_	2
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet w	weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas tha	t are	
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.2)	1 for list of	
strata)		
Total for H 1 Add the points in the	e boxes above	5
Rating of Site Potential If score is: 15-18 = H 7-14 = M 0-6 = L Reco	ord the rating on th	ne first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	T	
Calculate: % undisturbed habitat 17 + [(% moderate and low intensity land uses)/2] 11	= 28 %	
If total accessible habitat is:		
\square > $^{1}/_{3}$ (33.3%) of 1 km Polygon	points = 3	2
20-33% of 1 km Polygon	points = 2	_
10-19% of 1 km Polygon	points = 1	
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	•	
Calculate: % undisturbed habitat 18 + [(% moderate and low intensity land uses)/2] 13	31 %	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
Undisturbed habitat 10-50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	pomes c	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	-2
≤ 50% of 1 km Polygon is high intensity	points = 0	-2
Total for H 2 Add the points in the		1
·	rd the rating on the	
		, , <u>, , , , , , , , , , , , , , , , , </u>
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? 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 or animal on the state of	or federal lists)	
It is mapped as a location for an individual WDFW priority species		1
It is a Wetland of High Conservation Value as determined by the Department of Natural Res		
It has been categorized as an important habitat site in a local or regional comprehensive pla	n, in a	
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If score is: $2 = H$ $\checkmark 1 = M$ $0 = L$ Reco	ord the rating on t	he 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 (<i>full descriptions in WDFW PHS report</i>).
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 (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

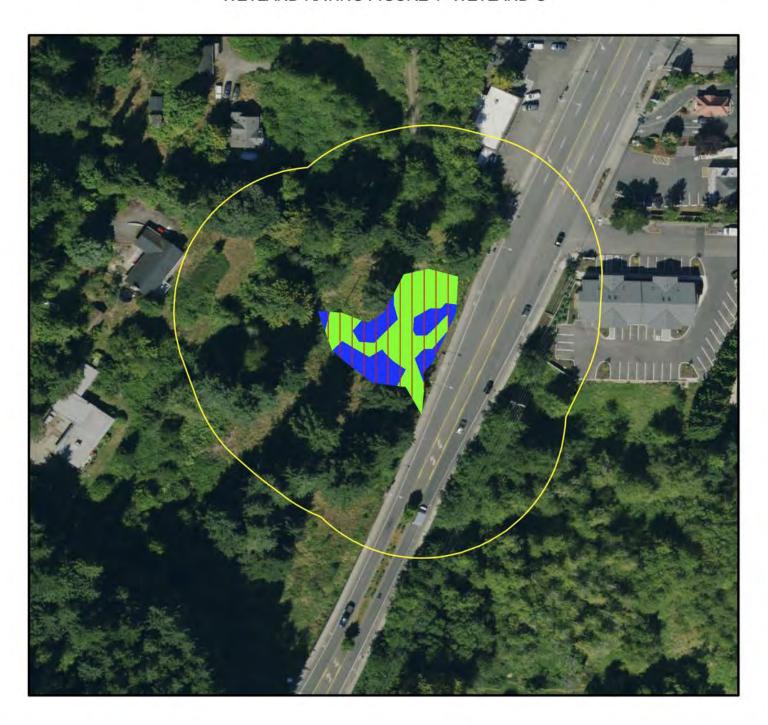
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
The dominant water regime 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	Cat. I
than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , 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 unmowed 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	
Contiguous riestiwater wetianus.	
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	Cat
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	
Yes = Is a Category I bog No = Is not a bog	

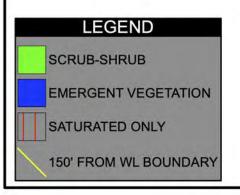
SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	I
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.	I
Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	I
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?	I
The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	I
marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	I
The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt)	6-4-1
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	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	I
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	I
The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	I
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.	I
In practical terms that means the following geographic areas:	I
Long Beach Peninsula: Lands west of SR 103	I
Grayland-Westport: Lands west of SR 105	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	I
Yes – Go to SC 6.1 No = not an interdunal wetland for rating	
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	I
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	I
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?	I
Yes = Category III No = Category IV	6-: "
	Cat. IV
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

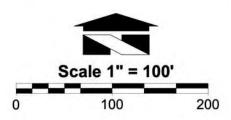
Wetland name or nu	ımber
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JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND G







Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure G-1 PO Box 188 WRI Job # 21199 Puyallup, WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND G



LEGEND

RELATIVELY UNDISTURBED

LOW/MOD. INTENSITY

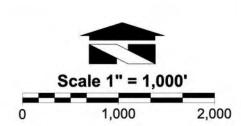
HIGH

INTENSITY

ACCESSIBLE HABITAT

WETLAND

1 KM FROM WETLAND CONTRIBUTING BASIN



Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174

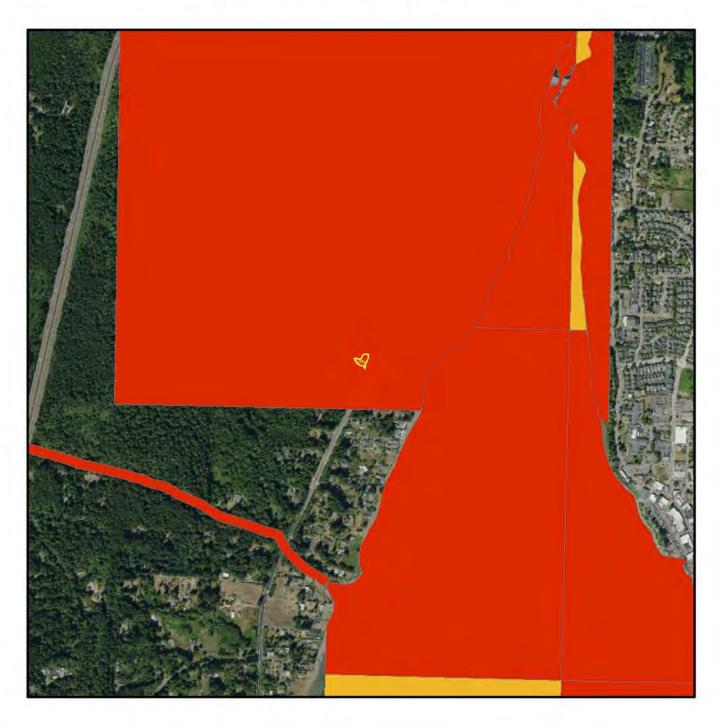
Fax: (425) 337-3045

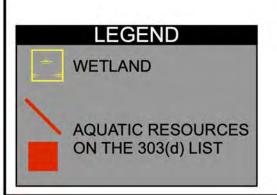
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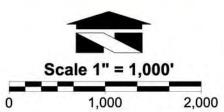
WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure G-2 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND G







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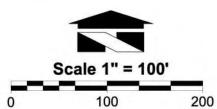
Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin Figure G-3 PO Box 188 WRI Job # 21199 PO WA 98371 Rated by: AH

JKM HOLDINGS - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND G







Delineation / Militation / Pestoration / Habitat Creation / Permit Assistance 9505 19th Avenue S.E. Suite 106 Everett, Washington 98208 Phone: (425) 337-3174 Fax: (425) 337-3045

Email: mailbox@wetlandresources.com

WETLAND RATING Wetland G

JKM Holdings, LLC Attn: Geoffrey P Sherwin PO Box 188 n Figure G-4 WRI Job # 21199 Rated by: AH Puyallup, WA 98371

Wetland name or number H

RATING SUMMARY – Western Washington

Name of wetland (or ID #): PLB - Wetland H (off-site)

Date of site visit: 10/7/2022

Rated by M.Kamowski

Trained by Ecology? Yes ___ No Date of training 03/2015

HGM Class used for rating Slope

Wetland has multiple HGM classes? ___ Y __ N

NOTE: Form is not complete without the required figures (figures can be combined).

Source of base aerial photo/map ESRI

OVERALL WETLAND CATEGORY _____ (based on functions <u>\(\nu\)</u> or special characteristics___)

1. Category of wetland based on FUNCTIONS

Category I − Total score = 23 - 27

Category II − Total score = 20 - 22

Category III − Total score = 16 - 19

Category IV − Total score = 9 - 15

FUNCTION	Improving Water Quality		Ну	Hydrologic		Habitat				
				(Circle th	е арг	ropri	ate rat	ings	
Site Potential	Н	М	L	Ι	М	L	Η	М	L	
Landscape Potential	Н	M	Г	Н	M	L	Н	М	\Box	
Value	Н	М	Г	Н	М	L	H	М	Г	TOTAL
Score Based on Ratings		6			5			6		17

Score for each function based on three ratings (order of ratings is not important) 9 = H, H, H8 = H, H, M7 = H, H, L7 = H, M, M6 = H, M, L6 = M, M, M5 = H, L, L5 = M, M, L4 = M, L, L3 = 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		✓

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 polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	
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 total 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 total 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	1
Hydroperiods	H 1.2	1
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	5
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	5
(can be added to figure above)		3
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	2
polygons for accessible habitat and total habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	3
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	4

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 have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in question 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 thou	ısand)?
NO – Saltwater Tidal Fringe (Estuarine) If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine we Saltwater Tidal Fringe, it is an Estuarine wetland and is not scored. This method cannot be functions for estuarine wetlands.	etlands. If it is
2. The entire wetland unit is flat, and precipitation is the only source (>90%) of water to it. Grosurface water runoff are NOT sources of water to the unit.	undwater and
NO – go to 3 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 (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).	without any
WO − go to 4 YES − The wetland class is Lake Fringe (Lacustrine Frin	ige)
 4. Does the entire wetland unit meet all of the following criteria? ✓ _The wetland is on a slope (slope can be very gradual), ✓ _The water flows through the wetland in one direction (unidirectional) and usually come It may flow subsurface, as sheet flow, or in a swale without distinct banks, ✓ _The water leaves the wetland without being impounded. 	es from seeps.
NO – go to 5 YES – The wetland class is Slo	оре
NOTE : Surface water does not pond in these type of wetlands except occasionally in very sm shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less that	

W	etland name or number H	
5.		e it gets inundated by overbank flooding from that
~	NO – go to 6 NOTE: The Riverine unit can contain depressions th	☐ YES – The wetland class is Riverine at are filled with water when the river is not flooding
6.		on in which water ponds, or is saturated to the surface, at tlet, if present, is higher than the interior of the wetland.
V	NO – go to 7	YES – The wetland class is Depressional
7.	•	with no obvious depression and no overbank flooding? few inches. The unit seems to be maintained by high ed 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 a example, seeps at the base of a slope may grade in	nd probably contains several different HGM classes. For to a riverine floodplain, or a small stream within a

3. 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	Ш	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 change in elevation for every 100 ft of horizontal distance.)	
Slope is 1% or less points = 3	1
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 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	2
'	3
Rating of Site Potential If score is:12 = H6-11 = Mv_0-5 = L	tne jirst 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? Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources No = 0	1
Total for S 2 Add the points in the boxes above	2
Rating of Landscape Potential If score is: <u>v</u> 1-2 = M0 = L	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? (Answer YES if there is a TMDL in development or in effect for the basin in which unit is found.) Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4
Rating of Value If score is: <u>v</u> 2-4 = H <u>1 = M</u> 0 = L Record the rating on the rating on the rating on the rating of the rating	

Wetland name or number $\underline{\mathsf{H}}$

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 in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0 Rating of Site Potential If score is: 1 = M0 = L Record the rating on	1 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 surface runoff? Yes = 1 No = 0	1
Rating of Landscape Potential If score is: <u>v</u> 1 = M0 = L	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: The sub-basin immediately downgradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther downgradient No flooding problems anywhere downstream points = 0	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*	0
Total for S 6 Add the points in the boxes above	0
Rating of Value If score is:2-4 = H1 = Mv_0 = L	the first page

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 Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac. Aquatic bed Emergent Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 2 Yer Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: Yer The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon	2
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 if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated Seasonally flooded or inundated Occasionally flooded or inundated Y Saturated only Permanently flowing stream or river in, or adjacent to, the wetland Intermittently or seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland Z points	2
Freshwater tidal wetland 2 points	
H 1.3. Richness of plant species 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, Canada thistle If you counted: > 19 species points = 2 points = 1 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 All three diagrams in this row are High = 3 points	1

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of checks is the number of points.		
Large, downed, woody debris within the wetland (> 4 in. diameter and 6 ft long).		
Standing snags (dbh > 4 in.) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extend at least 3.3 ft (1 m)		
over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	2	
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 amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the		
list of strata and H 1.5 in the manual for the list of aggressive plant species) Total for H 1 Add the points in the boxes above	8	
·		
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	ne first page	
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.		
Calculate: % relatively undisturbed habitat $0 + (\% \text{ moderate and low intensity land uses})/2] 0 = 0 %$		
Total accessible habitat is:	_	
$ > \frac{1}{3} (33.3\%) \text{ of 1 km Polygon} $ points = 3	0	
20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1		
< 10% of 1 km Polygon points = 0		
H 2.2. Total habitat in 1 km Polygon around the wetland.		
Calculate: % relatively undisturbed habitat $\frac{14}{14}$ + [(% moderate and low intensity land uses)/2] $\frac{12}{12}$ = $\frac{27}{14}$ %		
Total habitat > 50% of Polygon points = 3		
Total habitat 10-50% and in 1-3 patches points = 2	2	
Total habitat 10-50% and > 3 patches points = 1		
Total habitat < 10% of 1 km Polygon points = 0		
H 2.3. Land use intensity in 1 km Polygon:		
\checkmark > 50% of 1 km Polygon is high intensity land use points = (-2) \le 50% of 1 km Polygon is high intensity points = 0	-2	
Total for H 2 Add the points in the boxes above	0	
Rating of Landscape Potential If score is:4-6 = H1-3 = MV<1 = L		
	- ,	
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>Choose only the highest score</i>		
that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2		
Site meets ANY of the following criteria: points = 2 It has 3 or more Priority Habitats within 100 m (see next page)		
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 Natural Resources data		
It has been categorized as an important habitat site in a local or regional comprehensive 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 points = 1		
Site does not meet any of the criteria above points = 0		
Rating of Value If score is: \checkmark 2 = H1 = M0 = L Record the rating on	the first page	

Wetland Rating System for Western WA: 2014 Update Rating Form – Version 2, July 2023

				L	4	
Wetland	name	or	numbe	r I	ı	

WDFW Priority Habitats

See complete descriptions of Priority Habitats listed by WDFW, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008 (current year, as revised). Priority Habitat and Species List. 133 This list was updated for consistency with guidance from WDFW.

This question is independent of the land use between the wetland unit and the Priority Habitat. All vegetated wetlands are by definition a Priority Habitat but are not included in this list because they are addressed by this rating system.

Со	unt how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:
	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. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
	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.
	Fresh Deepwater: Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
	Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
	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. Do not select if Fresh Deepwater habitat is also present.
~	Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
V	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) diameter at breast height (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.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf
 Wetland Rating System for Western WA: 2014 Update
 Rating Form – Version 2, July 2023

Wetland name or number H
Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, WDFW's Management Recommendations for Oregon White Oak 134 provides more detail for determining if they are Priority Habitats
Riparian: The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
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.
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.
Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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 V 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?	Cat. I
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 <i>Spartina</i> , see chapter 4.8 in the	Cat. I
manual.	
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.	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. Does the wetland overlap with any known or historical rare plant or rare & high-quality ecosystem polygons	Cat. I
on the WNHP <u>Data Explorer</u> ? ¹³⁵ SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common	
ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the	
presence of these elements.	
Yes – Submit data to WA Natural Heritage Program for determination, ¹³⁶ Go to SC 2.3 No = Not a WHCV	
SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?	
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 below.</i> 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 V 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 = Not a bog	
pond? Yes – Go to SC 3.3 No = 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 = 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	Cat. I
the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	3461
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 = Category I bog No = Not a bog	

¹³⁵ https://www.dnr.wa.gov/NHPdata

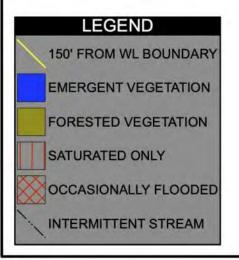
¹³⁶ https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf Wetland Rating System for Western WA: 2014 Update Rating Form – Version 2, July 2023

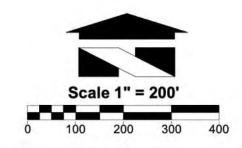


Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as Priority Habitats? <i>If you answer YES, you will still need to rate the wetland based on its functions.</i>	
Old-growth forests (west of Cascade 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)	
The lagoon retains some of its surface water at low tide during spring tides	
Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	6-1.1
SC 5.1. Does the wetland meet all of the following three conditions?	Cat. I
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 in H 1.5 in the manual).	
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	Cat I
Grayland-Westport: Lands west of SR 105	Cati
Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.	
Yes – Go to SC 6.1 No = Not an interdunal wetland for rating	
	Cat. II
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. III
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?	Cat. IV
Yes = Category III No = Category IV	cat. IV
Category of wetland based on Special Characteristics	N/A

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 1- WETLAND H







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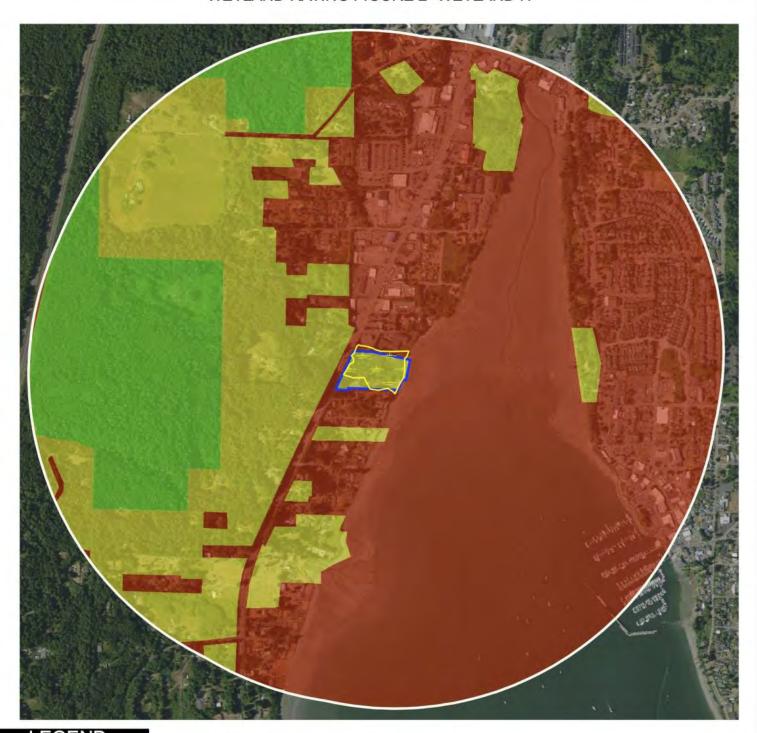
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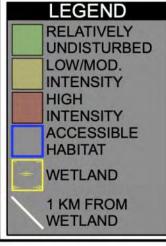
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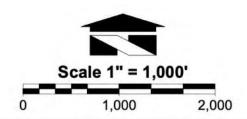
WETLAND RATING Wetland H

Figure H-1 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 2- WETLAND H







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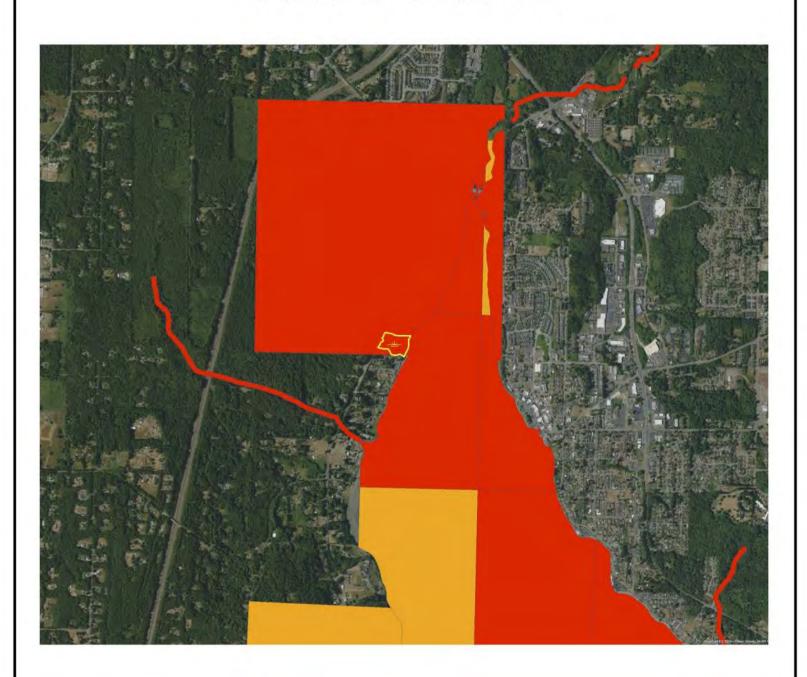
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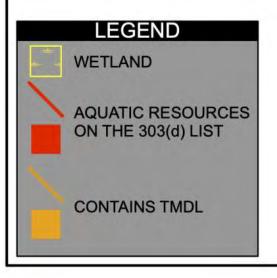
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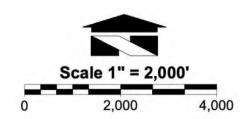
WETLAND RATING Wetland H

Figure H-2 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 3- WETLAND H







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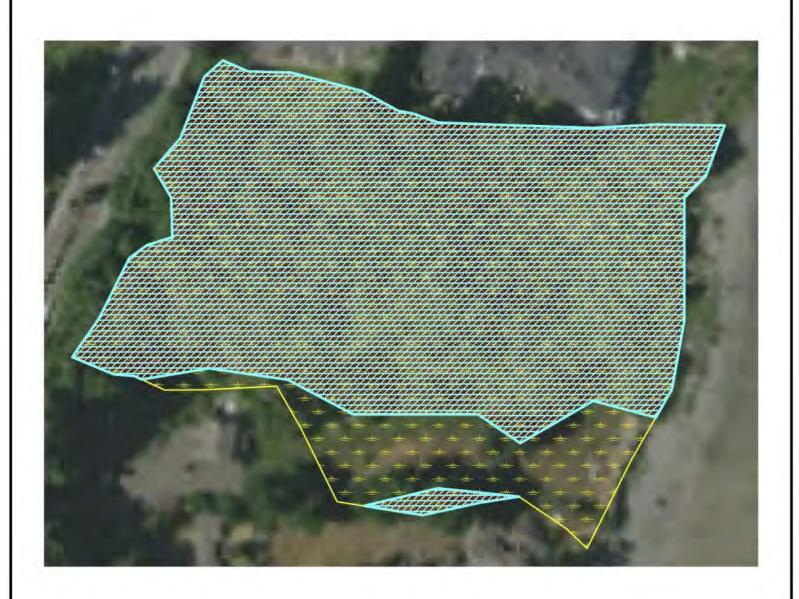
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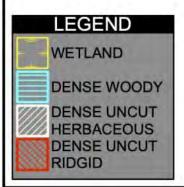
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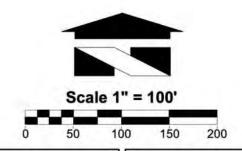
WETLAND RATING Wetland H

Figure H-3 WRI Job # 22210 Rated by: AJW

ENTITLE FUND TWO - VIKING AVE NW WETLAND RATING FIGURE 4- WETLAND H







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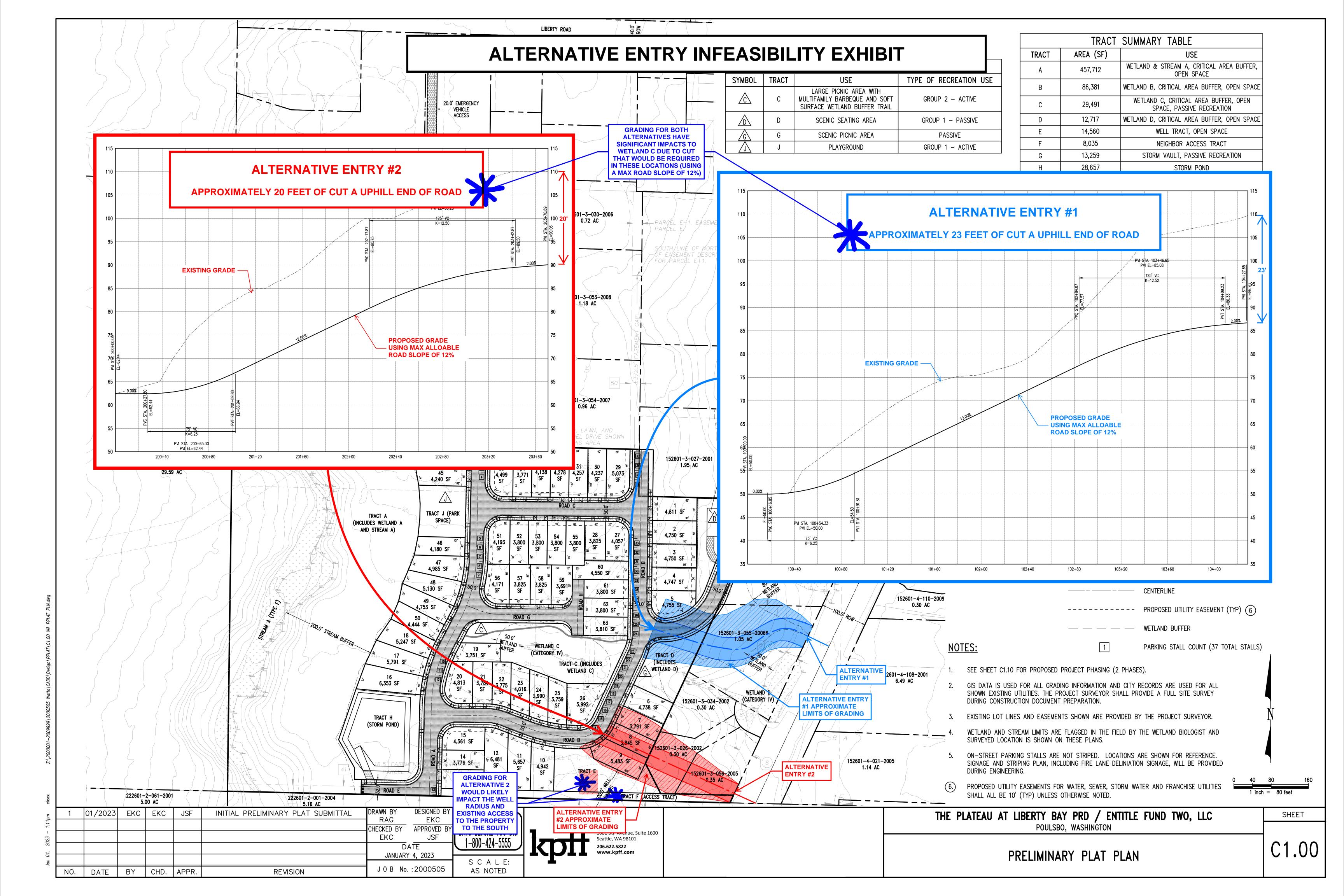
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WETLAND RATING Wetland H

Figure H-4 WRI Job # 22210 Rated by: AJW

APPENDIX C:

ALTERNATIVE ENTRY INFEASIBILITY EXHIBIT

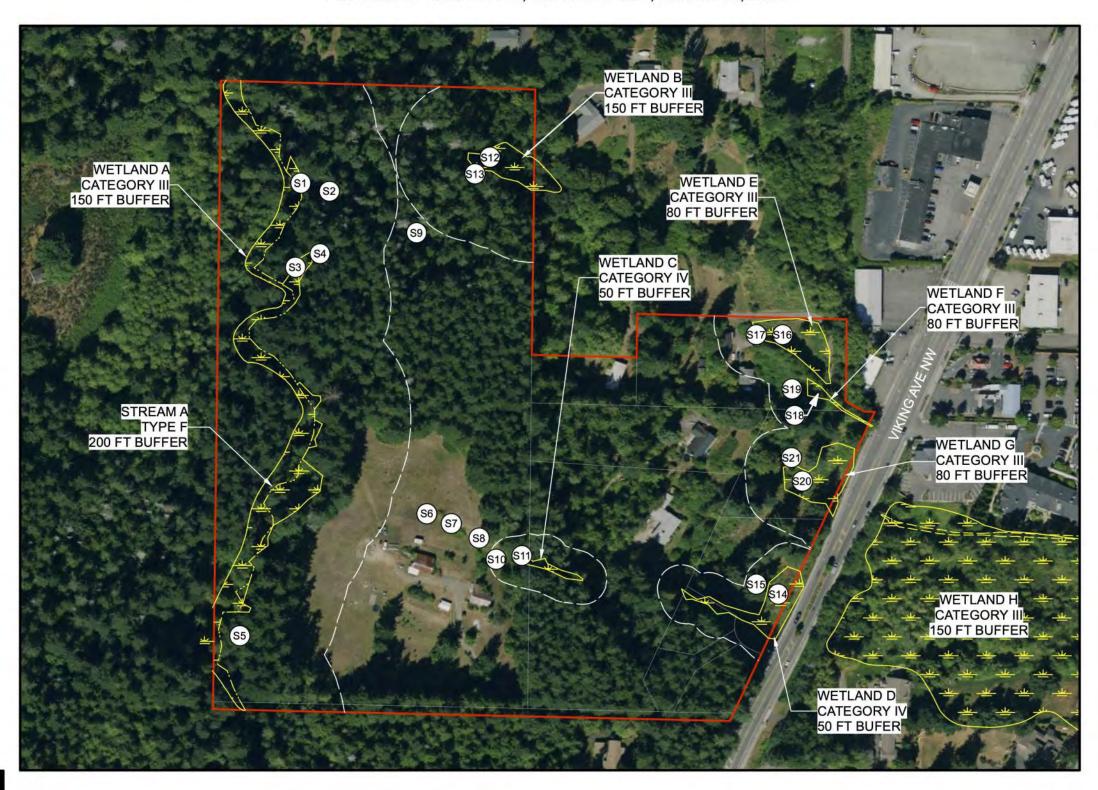


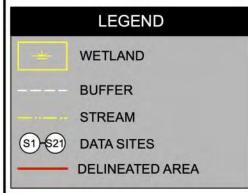
APPENDIX D:

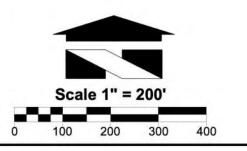
CRITICAL AREA STUDY MAPS

WETLAND AND STREAM DELINEATION MAP THE PLATEAU AT LIBERTY BAY

PORTION OF SECTION 15, TOWNSHIP 26N, RANGE 1E, W.M.







Wetland Resources, Inc.

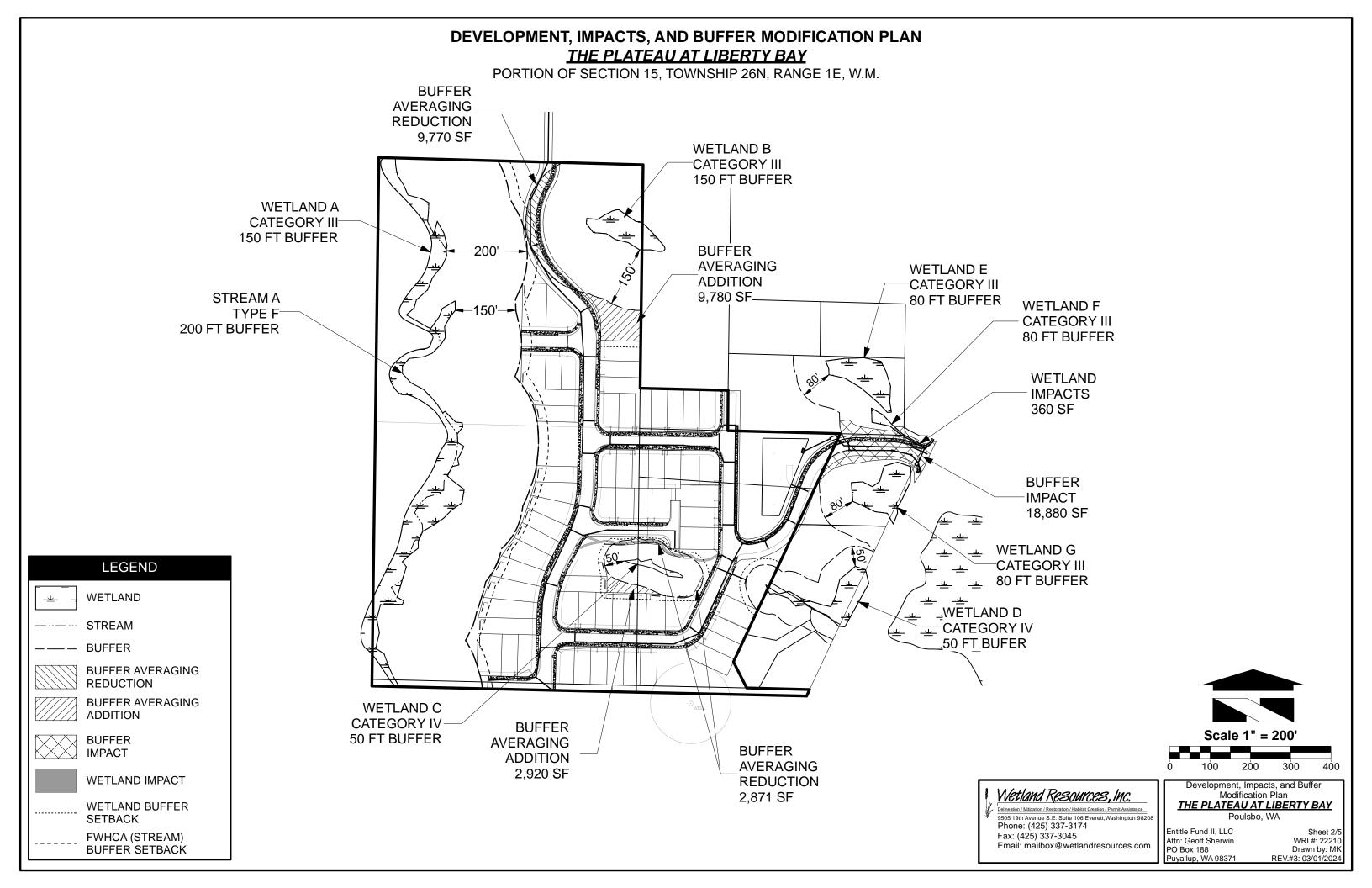
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Phone: (425) 337-3174
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Wetland and Stream Delineation Map

THE PLATEAU AT LIBERTY BAY

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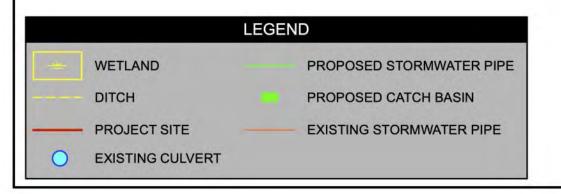
Sheet 1/5 WRI #: 22210 Drawn by: SS REV.#3: 03/01/2024

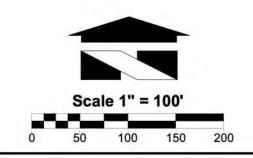


PROPOSED STORMWATER DISCHARGE LOCATION THE PLATEAU AT LIBERTY BAY

PORTION OF SECTION 15, TOWNSHIP 26N, RANGE 1E, W.M.









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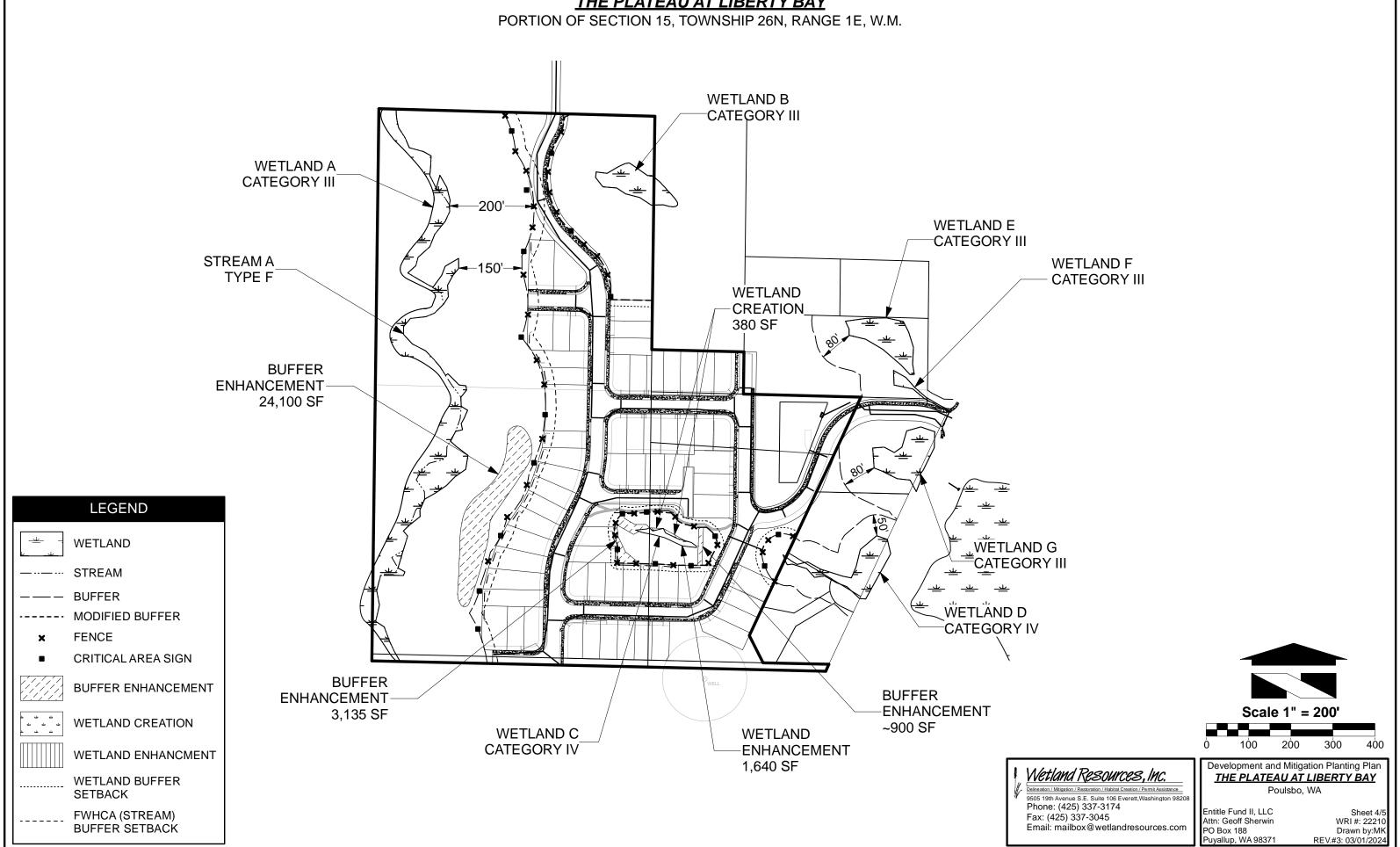
Proposed Stormwater Discharge Location

THE PLATEAU AT LIBERTY BAY

Poulsbo, WA

Entitle Fund II, LLC Attn: Geoff Sherwin PO Box 188 Puyallup, WA 98371 Sheet 3/5 WRI #: 22210 Drawn by:MK REV.#3: 03/01/2024

DEVELOPMENT AND MITIGATION PLANTING PLAN THE PLATEAU AT LIBERTY BAY

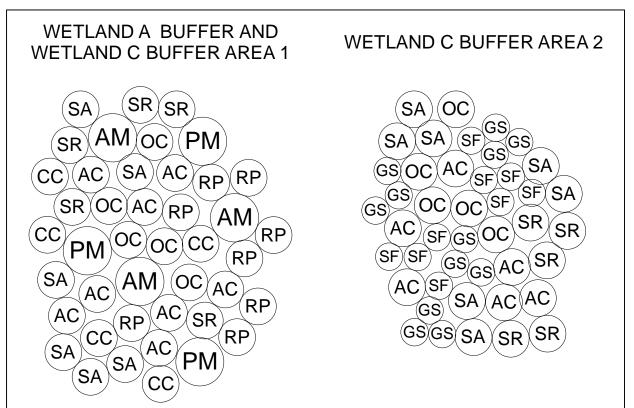


Puyallup, WA 98371

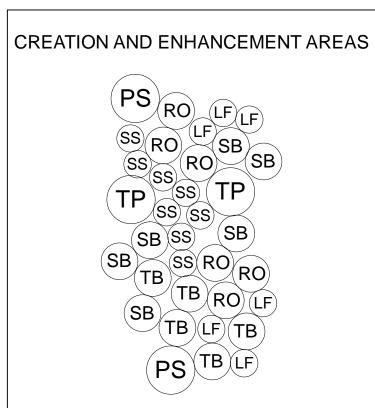
MITIGATION PLAN DETAILS THE PLATEAU AT LIBERTY BAY

PORTION OF SECTION 15, TOWNSHIP 26N, RANGE 1E, W.M.

BUFFER ENHANCEMENT PLANTING (TYPICAL)

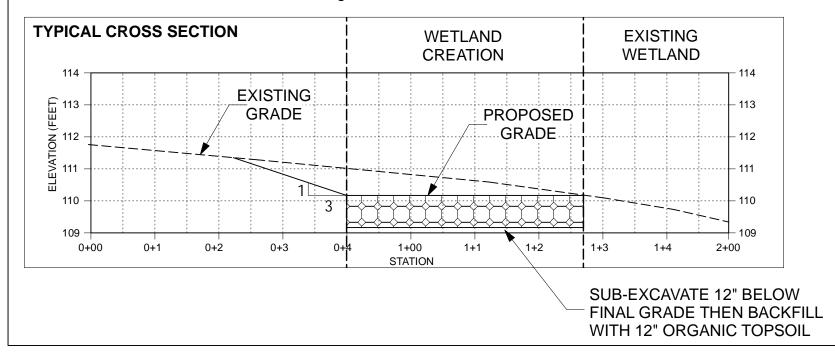


WETLAND PLANTING (TYPICAL)



WETLAND CREATION

Plans for the wetland creation areas are to sub-excavate the designated creation area to 12 inches below the adjacent wetland elevation. Twelve inches of silt loam topsoil containing a minium 30 percent organic matter will then be added to meet the existing wetland elevation.



	Common Name	Latin Name
PM	Douglas fir	Pseudotsuga menziesii
TP	Western red cedar	Thuja plicata
PS	Sitka spruce	Picea sitchensis
AM	Big-leaf maple	Acer macrophyllum
SR	Red elderberry	Sambucus racemosa
CC	Beaked hazelnut	Corylus cornuta
SA	Snowberry	Symphoricarpos albus
RP	Thimbleberry	Rubus parviflorus
AC	Vine maple	Acer circinatum
OC	Osoberry	Oemleria cerasiformis
RO	Red-osier dogwood	Cornus sericea
TB	Twinberry	Lonicera involucrata
SB	Salmonberry	Rubus spectabilis
SF	Sword fern	Polystichum munitum
GS	Salal	Gaultheria shallon
LF	Lady fern	Athyrium filix-femina
SS	Slough sedge	Carex obnupta



Phone: (425) 337-3174 Fax: (425) 337-3045 Email: mailbox@wetlandresources.com Mitigation Plan Details

THE PLATEAU AT LIBERTY BAY
Poulsbo, WA

Entitle Fund II, LLC Attn: Geoff Sherwin PO Box 188

Sheet 5/9 WRI #: 22210 Drawn by: MR REV.#2: 03/01/2024

Exhibit C

Grette4

MR-8 Third-Party final review email

March 13, 2024

From: Chad Wallin
To: Edie Berghoff

Subject: RE: Plateau at Liberty Bay Stormwater MR8 Compliance

Date: Wednesday, March 13, 2024 1:41:14 PM

Attachments: image001.png

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Good afternoon Edie,

Based on my review, it appears the mitigation plan was updated to include the additional area. Previously the buffer enhancement within Wetland A was 18,900 square feet and it is now 24,100 square feet which accounts for the 5,200 square feet of enhancement associated with the hydro mitigation. The revised plan also include discussions regarding the MR-8 requirements and mitigation (Section 4.5.3 of the Plan. In summary, the plan was revised in response to our hydro review and recommendation.

Let me know if there is anything else I can help with,

Chad Wallin

Project Biologist

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