## Altmann Oliver Associates, LLC

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January 24, 2023

AOA-5278

Einar Novion novion.e@gmail.com

SUBJECT: Critical Areas Designation for Parcel 282407-9045

King County, WA

Dear Einar:

On January 10, 2023 AOA conducted a wetland delineation on the subject property utilizing the methodology outlined in the May 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). The property is undeveloped and is situated between Preston Fall City Rd SE on its east side and the King County Preston - Fall City Trail on its west side. Topography generally slopes down from west to east.

Two wetlands (Wetlands A and B) and one stream (Stream 1) were identified on the property and the outer boundary of the wetlands was delineated during the field investigation. **Attachment A** contains data sheets prepared for representative locations in both the wetlands and uplands. These data sheets document the vegetation, soils, and hydrology information that aided in the wetland boundary delineation.

#### Wetland A, Stream 1, and Associated Wildlife Habitat Network

Wetland A consists of a mosaic of groundwater seepage areas located on the slope in the northern portion of the site. Runoff from the seeps generally drains east into a channel (Stream 1) near the north property line that flows east and is piped beneath Preston Fall City Rd SE and down a steep embankment into the Raging River.

Vegetation within Wetland A consisted of a forested and scrub-shrub plant community that included red alder (*Alnus rubra*), western red cedar (*Thuja plicata*), salmonberry (*Rubus spectabilis*), vine maple (*Acer circinatum*), stink currant (*Ribes bracteosum*), red elderberry (*Sambucus racemosa*), lady fern (*Athyrium filix-femina*), youth-on-age (*Tolmiea menziesii*), and stinging nettle (*Urtica dioica*).

Wetland A currently meets the criteria for a Category III wetland with 7 Habitat Points (**Attachment B**). Category III wetlands with 7 Habitat Points require a standard 110-foot buffer plus 15-foot building setback from the wetland edge. Stream 1 is a Type N Aquatic Area due to the steepness of the off-site channel connection to the Raging River. Type N streams require a standard 65-foot buffer plus 15-foot building setback from the ordinary high water (OHW) of the channel. In addition, a Wildlife Habitat Network with a 150-foot setback follows the centerline of the stream.

#### Wetland B

Wetland B is located on the slope in the central portion of the site. The wetland appears to be hydrologically supported primarily by groundwater seepage that drains down from west to east within several swales before infiltrating. Vegetation within Wetland B consisted of a forested and scrub-shrub plant community that included red alder (*Alnus rubra*), big-leaf maple (*Acer macrophyllum*), salmonberry (*Rubus spectabilis*), vine maple (*Acer circinatum*), stink currant (*Ribes bracteosum*), Himalayan blackberry (*Rubus armeniacus*), skunk cabbage (*Lysichiton americanum*), lady fern (*Athyrium filix-femina*), reed canarygrass (*Phalaris arundinacea*), and stinging nettle (*Urtica dioica*).

Wetland B also currently meets the criteria for a Category III wetland with 7 Habitat points (**Attachment B**) and requires a standard 110-foot buffer plus 15-foot building setback from the wetland edge.

If you have any questions regarding the Critical Areas Designation, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

John Altmann Ecologist

Attachments

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AOA

Environmental Planning & Landscape Architecture

King County Parcel 282407-9045

Approximate 110' Wetland Buffers

Approximate 15' Building Setback

# Critical Areas Map AOA - 5278

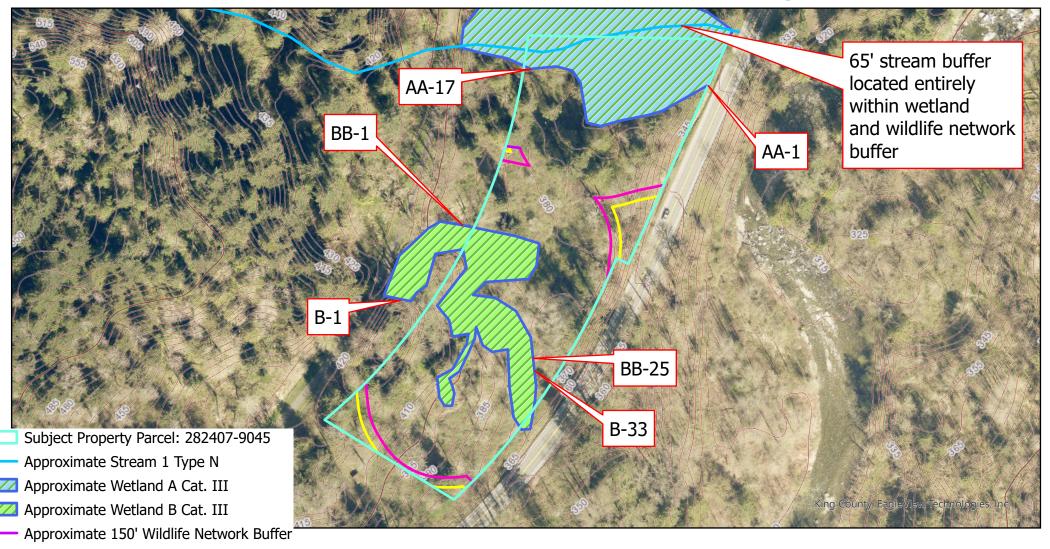
220

110

330

440

■US Feet





# ATTACHMENT A DATA SHEETS

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

Project Site:	Parcel 282407	<u>-9045</u>					City/Coun	ty:	/King		Sampling	Date:	9-20	)-22	
Applicant/Owner:	Novion								Stat	te: WA	Sampling	Point:	DP#	<u>‡1</u>	
Investigator(s):	John Altmann,	Dain Altmann, J	ason Pan	zera				S	ection, Tow	vnship, Rang	je: <u>S28,T2</u>	24N,R7E			
Landform (hillslope, te	rrace, etc.):					Loc	al relief (conca	ave, conv	ex, none):			Slope	(%):		_
Subregion (LRR):	<u>A</u>		Lat:	47.53	<u>439</u>			Long:	-121.9162	<u> 26</u>		Datum:			
Soil Map Unit Name:										NWI class	sification:				
Are climatic / hydrolog	ic conditions on	the site typical fo	or this time	e of ye	ear?	Υ	′es ⊠	No	☐ (If r	no, explain in	n Remarks.	)			
Are Vegetation ☐,	Soil □,	or Hydrology	□, sig	gnifica	ntly dis	sturbe	d? Are "I	Normal Ci	ircumstance	es" present?		Yes	$\boxtimes$	No	
Are Vegetation ☐,	Soil □,	or Hydrology	□, na	aturally	proble	ematic	? (If ne	eded, exp	olain any an	swers in Re	marks.)				
SUMMARY OF FIN	IDINGS - Atta	ach site map s	howing	sam	pling	poin	t locations,	transec	ts, impor	tant featur	res, etc.				
Hydrophytic Vegetatio	n Present?		Yes	$\boxtimes$	No										
Hydric Soil Present?			Yes	$\boxtimes$	No		Is the Samp within a We					Yes	$\boxtimes$	No	
Wetland Hydrology Pre	esent?		Yes	$\boxtimes$	No										
Remarks: Located 6	' into wetland a	t AA-8.													
VEGETATION - Us	e scientific n	ames of plant	s												
Tree Stratum (Plot size	ze: <u>6</u> )		Absolu % Co		Domi		Indicator	Domin	ance Test	Worksheet:					
1. <u>Alnus rubra</u>			<u>% Cov</u> <u>40</u>	<u>/CI</u>	Speci yes	<u> </u>	<u>Status</u> <u>FAC</u>	Numbo	r of Domina	ant Species					
2.			_		_					CW, or FAC:	:	<u>3</u>			(A)
3.				•				Total N	lumber of D	Ominant					
4.				•					s Across Al			<u>3</u>			(B)
50% = <u>20</u> , 20% = <u>8</u>			40	•	= Tot	al Cov	er	Porcon	t of Domina	ant Species					
Sapling/Shrub Stratu	m (Plot size: 6)									CW, or FAC:	:	<u>100</u>			(A/B)
1. Rubus spectabilis			<u>60</u>		<u>ves</u>		<u>FAC</u>	Preval	ence Index	worksheet	:				
Ribes bracteosuri			<u>15</u>		no no		FAC			% Cover of:		Multip	lv bv:		
3. Rubus armeniacu	<del>_</del>		<u>15</u>		no no		FAC	OBL sp		70 00101 011		x1 =	., ~,.		
4	-							1	species			x2 =			
5.				-				FAC sp	-			x3 =			
50% = <u>45,</u> 20% = <u>18</u>			90	-	= Tot	al Cov	er	1	species			x4 =			
Herb Stratum (Plot si								UPL sp	•			x5 =			
Tolmiea menzies	_		<u>40</u>		Vec		FAC				(A)	λο		(	B)
2.	<u>II</u>		40		<u>yes</u>		170	Column	n Totals:	Prevalence		Λ –		(	ט)
3.			-	-				Usadaas	abutia Vasu			A			
4.			-	-						etation Indicest for Hydro		ototion			
			-	-				l	•	•		etation			
5			-	-				_		ce Test is >5					
6				-				□ 3	- Prevalen	ce Index is <	<u>≤</u> 3.0¹				
7										ogical Adapta emarks or or			rting		
8				-				l				e sneet)			
9				-				l	- Wetland I	Non-Vascula	ar Plants'				
10				-				□ Р	roblematic	Hydrophytic	Vegetation	n¹ (Explain)			
11			-	-				1Indicat	tors of hydri	ic soil and w	etland hyd	rology must			
50% = <u>20,</u> 20% = <u>8</u>			<u>40</u>		= Tot	al Cov	er			disturbed o					
Woody Vine Stratum	(Plot size:	_)													
1				-				Usadaas	a la						
2			-	-				Hydror Vegeta	-	Υ	'es	$\boxtimes$	No	)	
50% =, 20% =	·				= Tot	al Cov	er	Preser			-	_			_
% Bare Ground in He	erb Stratum	<u> </u>													
Remarks:															
i															

Project Site: Parcel 282407-9045

inches) Color (moist)	%	Color (m	Redox Features oist) % Type	e <sup>1</sup> Loc <sup>2</sup>	— Texture	Remark	re	
0-15 10YR3/1	100	111) 10100	<u> </u>		silty clay	rtemar		
<u>1011(0/1</u>	100				only oldy	<del></del>		
			· — —					
				_				
				_				
			<u> </u>					
pe: C= Concentration, D=Dep	letion, RM=	Reduced Ma	trix, CS=Covered or Coated S	and Grains. <sup>2</sup> L	ocation: PL=Pc	ore Lining, M=Matrix		
dric Soil Indicators: (Applica	ble to all L	RRs, unless	otherwise noted.)		Indicat	ors for Problematic Hydric	Soils³:	
Histosol (A1)			Sandy Redox (S5)			2 cm Muck (A10)		
Histic Epipedon (A2)			Stripped Matrix (S6)			Red Parent Material (TF2)		
Black Histic (A3)			Loamy Mucky Mineral (F1)	(except MLRA 1)	□ '	Very Shallow Dark Surface (T	TF12)	
Hydrogen Sulfide (A4)			Loamy Gleyed Matrix (F2)			Other (Explain in Remarks)		
Depleted Below Dark Surfa	ce (A11)		Depleted Matrix (F3)					
Thick Dark Surface (A12)			Redox Dark Surface (F6)		21 11 1			
Sandy Mucky Mineral (S1)			Depleted Dark Surface (F7	)		ors of hydrophytic vegetation and hydrology must be prese		
Sandy Gleyed Matrix (S4)			Redox Depressions (F8)		unle	ss disturbed or problematic.		
strictive Layer (if present):								
De:					<b>5</b>	V 57		_
oth (inches):				Hydric Soils	Fresentr	Yes 🛛	No	
emarks:								
emarks:  DROLOGY								
DROLOGY								
		l; check all tha	at apply)		Secondal	ry Indicators (2 or more requi	red)	
DROLOGY etland Hydrology Indicators:		d; check all tha	at apply) Water-Stained Leaves (B9)	)		ry Indicators (2 or more requi ter-Stained Leaves (B9)	red)	
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of o					☐ Wa		red)	
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of o Surface Water (A1) High Water Table (A2)			Water-Stained Leaves (B9)		☐ Wa	ter-Stained Leaves (B9)	red)	
PROLOGY  Itland Hydrology Indicators: mary Indicators (minimum of o  Surface Water (A1)  High Water Table (A2)		_	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and	nd 4B)	☐ Wa (ML	ter-Stained Leaves (B9)  RA 1, 2, 4A, and 4B)	red)	
DROLOGY  Indicators:  Mary Indicators (minimum of o  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ard Salt Crust (B11)	nd 4B)	☐ Wa (ML) ☐ Dra ☐ Dry	ter-Stained Leaves (B9)  RA 1, 2, 4A, and 4B)  inage Patterns (B10)	•	
DROLOGY  Indicators: Indicators (minimum of of of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13)	nd 4B) )	☐ Wa (ML ☐ Dra ☐ Dry ☐ Sat	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  iinage Patterns (B10)  -Season Water Table (C2)	•	
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	nd 4B)  )  )  ng Living Roots (C	Wa  (ML  Dra  Dry  Sat  3)  Geo	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  L-Season Water Table (C2)  Luration Visible on Aerial Image	•	
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of o Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alo	nd 4B)  )  ng Living Roots (C3 (C4)	Wa (ML) Dra Dry Dry Sat Stat Sha	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  -Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)	•	
PROLOGY Etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	nd 4B)  )  ng Living Roots (C3 (C4)  illed Soils (C6)	Wa (ML)  Dra  Dry  Sat  Sha  FAG	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  -Season Water Table (C2)  Luration Visible on Aerial Imago  Comorphic Position (D2)  Lallow Aquitard (D3)	gery (C9)	
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DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Conca	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres also Presence of Reduced Iron Recent Iron Reduction in Till Stunted or Stresses Plants	nd 4B)  ) ng Living Roots (C: (C4) illed Soils (C6) (D1) (LRR A)	Wa	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  L-Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A	gery (C9)	
DROLOGY etland Hydrology Indicators: imary Indicators (minimum of of Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Sparsely Vegetated Concaeld Observations:	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres also Presence of Reduced Iron Recent Iron Reduction in Till Stunted or Stresses Plants	nd 4B)  ) ng Living Roots (C: (C4) illed Soils (C6) (D1) (LRR A)	Wa	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  L-Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A	gery (C9)	
PROLOGY  Stland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concasted Observations: rface Water Present?	ne required al Imagery ( ave Surface		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)	nd 4B)  ) ng Living Roots (C: (C4) illed Soils (C6) (D1) (LRR A)	Wa	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  L-Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A	gery (C9)	
PROLOGY  Patland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concasted Observations: rface Water Present?  Vitartion Present?	ne required al Imagery ( ave Surface	(B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)	nd 4B)  ) ng Living Roots (C3 (C4) illed Soils (C6) (D1) (LRR A)	Wa	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  -Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A  St-Heave Hummocks (D7)	gery (C9)	
DROLOGY etland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concaeld Observations: rface Water Present?  Veter Table Present?	al Imagery ( ave Surface es   es   es		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches): Depth (inches):  Depth (inches): 0	nd 4B)  ) ng Living Roots (C: (C4) illed Soils (C6) (D1) (LRR A) )	Wa (ML)  Dra  Dry  Satt  Sha  FAG  Fro	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  -Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A  St-Heave Hummocks (D7)	gery (C9)	
PROLOGY  Patland Hydrology Indicators: mary Indicators (minimum of or Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concasted Observations: rface Water Present?  Attention Present? Cludes capillary fringe)	al Imagery ( ave Surface es   es   es		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, ar Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alo Presence of Reduced Iron Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches): Depth (inches):  Depth (inches): 0	nd 4B)  ) ng Living Roots (C: (C4) illed Soils (C6) (D1) (LRR A) )	Wa (ML)  Dra  Dry  Satt  Sha  FAG  Fro	ter-Stained Leaves (B9)  LRA 1, 2, 4A, and 4B)  Linage Patterns (B10)  -Season Water Table (C2)  Luration Visible on Aerial Image  Comorphic Position (D2)  Lallow Aquitard (D3)  C-Neutral Test (D5)  Sed Ant Mounds (D6) (LRR A  St-Heave Hummocks (D7)	gery (C9)	

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

Project Site:	Parcel 28240	7-904 <u>5</u>					City/Coun	ty: <u>/Kin</u>	<u>ng</u>	Sampling	Date:	9-20	) <u>-22</u>	
Applicant/Owner:	<u>Novion</u>								State: WA	Sampling	Point:	DP#	<u> </u>	
Investigator(s):	John Altmann	, Dain Altmann, J	ason Pan	zera				Section	, Township, Ra	nge: <u>S28,T</u>	24N,R7E			
Landform (hillslope, te	errace, etc.):					Loc	al relief (conca	ave, convex, no	ne):		Slope	(%):		_
Subregion (LRR):	<u>A</u>		Lat:	47.53	439			Long: <u>-121</u>	<u>.91626</u>		Datum:			
Soil Map Unit Name:									NWI cla	ssification:				
Are climatic / hydrolog	ic conditions or	n the site typical f	or this time	e of ye	ear?	Υ	′es ⊠	No 🗆	(If no, explain	in Remarks.	.)			
Are Vegetation	, Soil □,	or Hydrology	□, sig	gnifica	intly dis	sturbe	d? Are "l	Normal Circums	stances" presen	t?	Yes	$\boxtimes$	No	
Are Vegetation	, Soil □,	or Hydrology	□, na	turally	probl	ematic	? (If ne	eded, explain a	ny answers in F	Remarks.)				
SUMMARY OF FIN	IDINGS – Att	ach site map s	showing	sam	pling	poin	t locations,	transects, in	nportant feat	ures, etc.				
Hydrophytic Vegetatio	n Present?		Yes	$\boxtimes$	No									
Hydric Soil Present?			Yes		No	$\boxtimes$	Is the Samp within a We				Yes		No	
Wetland Hydrology Pr	esent?		Yes		No	$\boxtimes$								
Remarks: Located 1	10' into upland a	at AA-8.												
VEGETATION - Us	e scientific r	names of plant	:s											
Tree Stratum (Plot si			Absolu		Domi		Indicator	Dominance '	Test Workshee	et:				
1. Acer circinatum	<u> </u>		<u>% Cov</u> 100	<u>er</u>	Spec yes	ies?	<u>Status</u> <u>FAC</u>							
2			100		<u>ycs</u>		1710	That Are OBL	ominant Specie L, FACW, or FA	:s .C:	<u>3</u>			(A)
3.			-											
4.			-						r of Dominant oss All Strata:		<u>4</u>			(B)
50% = <u>50</u> , 20% = <u>20</u>			100		= Tot	al Cov	er	D						
Sapling/Shrub Stratu		))	100		100	u. 001	O.		ominant Specie L, FACW, or FA		<u>75</u>			(A/B)
Acer circinatum	(1 101 0.20. <u>11</u>	<u>-</u> /	<u>80</u>		<u>ves</u>		FAC	Prevalence I	Index workshe	et.				
2			<u>00</u>		<u>700</u>		1710		Total % Cover		Multip	ılv bv		
3.								OBL species		<u> </u>	x1 =	<u>., ~,.</u>		
4.								FACW specie		_	x2 =			
5.								FAC species		_	x3 =			
50% = <u>40</u> , 20% = <u>16</u>			80		= Tot	al Cov	er	FACU specie	<u></u>	<del>_</del>	x4 =			
Herb Stratum (Plot si			_					UPL species		_	x5 =	_		
Polystichum mun	<del></del>		<u>20</u>		yes		FACU	·		(A)	7.0		<u> </u>	B)
Tolmiea menzies							FAC	Column Total		(^) ce Index = B/	/A —		\	ט)
3.	<u> </u>		<u>20</u>		<u>yes</u>		IAC	Hudronbutio						
4.			-					1 _	: Vegetation In		otation			
								·	ninance Test is		etation			
5														
6									valence Index is	_				
7									phological Ada <sub>l</sub> in Remarks or			rting		
8								L		•	ie sneet)			
9									land Non-Vasc					
10			-					☐ Probler	natic Hydrophy	tic Vegetation	n¹ (Explain)			
11			-		_			<sup>1</sup> Indicators of	hydric soil and	wetland hvd	rology mus	t		
50% = <u>20</u> , 20% = <u>8</u>			<u>40</u>		= Tot	al Cov	er		inless disturbed			•		
Woody Vine Stratum	_(Plot size:	)												
1								Lludronhutio						
2								Hydrophytic Vegetation	•	Yes	$\boxtimes$	No	)	
50% =, 20% =	<b>'</b> —				= Tot	al Cov	er	Present?			_			_
% Bare Ground in He	erb Stratum	<u> </u>												
Remarks:														
i.														

Project Site: Parcel 282407-9045

Depth Ma	atrix			Redo	ox Features		_	
nches) Color (mois	.)	%	Color (me	oist) %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<del>_</del>
<u>0-15</u> <u>10YR5/3</u>		<u>100</u>					<u>GSL</u>	gravelly silty loam
	_	—	-			-		<del></del>
<del></del>	_	—				-	-	<del>-</del>
<del></del>	_				- —			<del></del>
	_						-	<del></del>
	_						-	<del></del>
	_					· <del></del>	-	<del></del>
/pe: C= Concentration, D	-Depletion	—— n RM=R	Reduced Mat	rix CS=Covered	– ——— d or Coated San	d Grains <sup>2</sup> I	ocation: PI =	=Pore Lining, M=Matrix
dric Soil Indicators: (Ap	•	-		•				cators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)				Sandy Redox	-			2 cm Muck (A10)
Histic Epipedon (A2)				Stripped Matr				Red Parent Material (TF2)
Black Histic (A3)				Loamy Mucky	y Mineral (F1) <b>(e</b> )	xcept MLRA 1)		Very Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4				Loamy Gleye	d Matrix (F2)			Other (Explain in Remarks)
Depleted Below Dark	Surface (/	A11)		Depleted Mat	irix (F3)			
Thick Dark Surface (A	12)			Redox Dark S	Surface (F6)			
Sandy Mucky Mineral	(S1)			Depleted Dar	k Surface (F7)			cators of hydrophytic vegetation and
Sandy Gleyed Matrix	S4)			Redox Depres	ssions (F8)			retland hydrology must be present, nless disturbed or problematic.
strictive Layer (if prese	ıt):			,				
e:								
oth (inches):						Hydric Soils	resent?	Yes □ No
marks: No redoximor	hic featu	res						
	hic featu	res						
DROLOGY		res						
DROLOGY otland Hydrology Indica	cors:		check all tha	ıt apply)			Secon	idary Indicators (2 or more required)
DROLOGY otland Hydrology Indica	cors:		check all tha		d Leaves (B9)			idary Indicators (2 or more required) Water-Stained Leaves (B9)
PROLOGY Itland Hydrology Indica mary Indicators (minimur	cors:			Water-Stained	d Leaves (B9)			
DROLOGY etland Hydrology Indica mary Indicators (minimur Surface Water (A1)	cors:			Water-Stained	A 1, 2, 4A, and		(	Water-Stained Leaves (B9)
ROLOGY tland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2	cors:			Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert	<b>A 1, 2, 4A, and 4</b> 11) tebrates (B13)		)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
PROLOGY  Itland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B	ors: n of one re			Water-Stained (except MLR Salt Crust (B1 Aquatic Invert Hydrogen Sul	A 1, 2, 4A, and 4 11) tebrates (B13) Ifide Odor (C1)	4B)	) 1   1   2	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
PROLOGY  Itland Hydrology Indicates  mary Indicators (minimum)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)	tors: n of one re			Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz	AA 1, 2, 4A, and 4 11) tebrates (B13) Ifide Odor (C1) zospheres along	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
PROLOGY Etland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B	tors: n of one re			Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F	AA 1, 2, 4A, and 4 11) tebrates (B13) Ifide Odor (C1) zospheres along Reduced Iron (C4	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3)
DROLOGY etland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B3) Iron Deposits (B5)	cors: n of one re )			Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
DROLOGY  Etland Hydrology Indica mary Indicators (minimur  Surface Water (A1)  High Water Table (A2  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B  Iron Deposits (B5)  Surface Soil Cracks (	Fors: n of one re 1) 2) 4)	equired;		Water-Stained (except MLR Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tilled resses Plants (D	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY  Istland Hydrology Indical mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1 Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on	cors: n of one re ) 2) 4) B6) Aerial Ima	equired;		Water-Stained (except MLR Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
PROLOGY  Intland Hydrology Indication  mary Indicators (minimum)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B1)  Iron Deposits (B5)  Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (A2)	cors: n of one re ) 2) 4) B6) Aerial Ima	equired;		Water-Stained (except MLR Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tilled resses Plants (D	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOGY etland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated (	cors: n of one re 1) 2) 4) B6) Aerial Ima	equired; agery (B Surface (l		Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	tA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller resses Plants (D n in Remarks)	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOGY etland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated ( eld Observations: rface Water Present?	Pors: In of one re	equired; agery (B	7) DB8)	Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller resses Plants (D n in Remarks)	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
DROLOGY etland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated (C) eld Observations: rface Water Present?	cors: n of one re 1) 2) 4) B6) Aerial Ima	equired; agery (B Surface (l		Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str	AA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tiller resses Plants (D n in Remarks)	4B) Living Roots (C:		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY  Stland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated (C) Ind Observations:  Ifface Water Present?	Pors: In of one re	equired; agery (B	7) DB8)	Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain	tA 1, 2, 4A, and 4 11) tebrates (B13) lfide Odor (C1) zospheres along Reduced Iron (C4 Reduction in Tilled resses Plants (D n in Remarks)	4B) Living Roots (C34) d Soils (C6) 1) (LRR A)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
PROLOGY  Patland Hydrology Indicators (minimumous function (A1)) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B1) Iron Deposits (B5) Surface Soil Cracks (Inundation Visible on Sparsely Vegetated (C1) Plot Observations: Inface Water Present? Intertable Present? Intertable Present?	cors: n of one re ) 2) 4) 4) Aerial Ima concave S Yes Yes Yes	equired;	7)	Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain Depth (in	AA 1, 2, 4A, and 4  11)  tebrates (B13)  Ifide Odor (C1)  zospheres along  Reduced Iron (C4  Reduction in Tilled  resses Plants (D  n in Remarks)  aches):  aches):  aches):	4B) Living Roots (C34) d Soils (C6) 1) (LRR A)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
PROLOGY  Itland Hydrology Indica mary Indicators (minimur Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Surface Soil Cracks ( Inundation Visible on Sparsely Vegetated (Inundation Visible on V	cors: n of one re ) 2) 4) 4) Aerial Ima concave S Yes Yes Yes	equired;	7)	Water-Stained (except MLR. Salt Crust (B1 Aquatic Invert Hydrogen Sul Oxidized Rhiz Presence of F Recent Iron R Stunted or Str Other (Explain Depth (in	AA 1, 2, 4A, and 4  11)  tebrates (B13)  Ifide Odor (C1)  zospheres along  Reduced Iron (C4  Reduction in Tilled  resses Plants (D  n in Remarks)  aches):  aches):  aches):	4B) Living Roots (C34) d Soils (C6) 1) (LRR A)		Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

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

Project Site:	Parcel 282407-	<u>-9045</u>					City/Coun	ty: <u>/</u> /	King	5	Sampling	Date:	<u>1-1(</u>	<u>0-23</u>	
Applicant/Owner:	<u>Novion</u>								State:	<u>WA</u> S	Sampling I	Point:	DP#	<u> </u>	
Investigator(s):	John Altmann,	Dain Altmann, Ja	ason Panz	zera				Section	on, Townsl	hip, Range	: <u>S28,T2</u>	24N,R7E			
Landform (hillslope, te	rrace, etc.):					Loca	al relief (conca	ave, convex, i	none):			Slope	e (%):		_
Subregion (LRR):	<u>A</u>		Lat: 4	47.53	<u>439</u>			Long: <u>-1</u> :	<u>21.91626</u>			Datum:			
Soil Map Unit Name:									1	NWI classit	lication:				
Are climatic / hydrolog	ic conditions on	the site typical fo	or this time	of ye	ear?	Υ	′es ⊠	No 🗆	(If no,	explain in l	Remarks.	)			
Are Vegetation ☐,	Soil □,	or Hydrology	□, sig	nifica	ntly dis	sturbed	d? Are "I	Normal Circur	mstances"	present?		Yes	$\boxtimes$	No	
Are Vegetation ☐,	Soil □,	or Hydrology	□, nat	turally	proble	ematic	? (If ne	eded, explain	any answe	ers in Rem	arks.)				
SUMMARY OF FIN	DINGS – Atta	ch site map s	howing	sam	pling	point	locations,	transects,	importar	nt feature	s, etc.				
Hydrophytic Vegetation	n Present?		Yes	$\boxtimes$	No		Is the Samp	lad Araa							
Hydric Soil Present?			Yes	$\boxtimes$	No		within a We					Yes	$\boxtimes$	No	
Wetland Hydrology Pre	esent?		Yes		No										
Remarks: Located 1	0' into wetland a	it BB-17.													
VEGETATION - Use	e scientific na	ames of plants						1							
Tree Stratum (Plot size	ze: <u>10</u> )		Absolu <u>% Cov</u>		Domi Speci		Indicator <u>Status</u>	Dominanc	e Test Wo	orksheet:					
1. Alnus rubra			20		yes		FAC	Number of	Dominant	Species		4			(A)
2								That Are O				<u>4</u>			(A)
3								Total Numl	ber of Dom	ninant		4			(D)
4								Species Ad	cross All St	trata:		<u>4</u>			(B)
50% = <u>10</u> , 20% = <u>4</u>			<u>20</u>		= Tot	al Cov	er		Dominant :			100			(A/B)
Sapling/Shrub Stratur	<u>m</u> (Plot size: <u>10</u> )							That Are O	BL, FACW	/, or FAC:		100			(٨/٥)
1. Rubus spectabilis	<u> </u>		<u>40</u>		<u>yes</u>		<u>FAC</u>	Prevalenc	e Index wo	orksheet:					
2. Acer circinatum			<u>10</u>		<u>no</u>		FAC		Total % (	Cover of:		Multip	ly by:		
3. Rubus armeniacu	<u>IS</u>		<u>10</u>		<u>no</u>		<u>FAC</u>	OBL specie	es			x1 =	_		
4								FACW spe	ecies			x2 =			
5								FAC specie	es			x3 =			
50% = <u>30</u> , 20% = <u>12</u>			<u>60</u>		= Tot	al Cov	er	FACU spec	cies			x4 =			
Herb Stratum (Plot size	ze: <u>10</u> )							UPL specie	es			x5 =			
1. Equisetum arvens	<u>se</u>		<u>60</u>		<u>yes</u>		<u>FAC</u>	Column To	otals:	(	(A)			(	(B)
2. Athyrium filix-fem	<u>ina</u>		<u>20</u>		<u>yes</u>		FAC		Pr	evalence I	ndex = B/	'A =			
3. <u>Carex obnupta</u>			<u>10</u>		<u>no</u>		<u>OBL</u>	Hydrophy	tic Vegeta	tion Indica	ators:				
4. Tolmiea menziesi	<u>ii</u>		<u>10</u>		<u>no</u>		<u>FAC</u>	□ 1-R	Rapid Test f	for Hydrop	hytic Veg	etation			
5								☑ 2 - D	ominance <sup>-</sup>	Test is >50	)%				
6								□ 3-Pi	revalence I	Index is <3	5.0 <sup>1</sup>				
7								4-M	lorphologic	al Adaptat	ions¹ (Pro	vide suppo	rting		
8								da da	ata in Rema	arks or on	a separat	e sheet)	_		
9								□ 5-W	etland Nor	n-Vascular	Plants <sup>1</sup>				
10								☐ Probl	lematic Hy	drophytic \	/egetation	n¹ (Explain)			
11															
50% = <u>50</u> , 20% = <u>20</u>			<u>100</u>		= Tot	al Cov	er		of hydric s , unless dis			rology mus tic	t		
Woody Vine Stratum	(Plot size:	_)						20 process	,		p. 02.0a				
1															
2								Hydrophy							
50% =, 20% =					= Tot	al Cov	er	Vegetation Present?	n	Ye	S		No	)	
% Bare Ground in He	erb Stratum	_													
Remarks:								1							
AGIIIarks.															

Project Site: Parcel 282407-9045

OIL									
Profile Description: (Describe t	o the depti	h needed to d	locument the indicator or co	onfirm the absence	of indicators.)				
Depth Matrix			Redox Features		_				
inches) Color (moist)	%	Color (mo	oist) % Type	e <sup>1</sup> Loc <sup>2</sup>	Texture	F	Remarks		
<u>0-16</u> <u>10YR3/1</u>	<u>100</u>			_	silty clay	_			
						_			
				_		_			
						_			
						_			
						_			
				_		_			
				_		_			
Type: C= Concentration, D=Dep	etion, RM=	Reduced Matr	rix, CS=Covered or Coated Sa	and Grains. <sup>2</sup> Lo	ocation: PL=Pore Linin	g, M=Matrix			
lydric Soil Indicators: (Applica	ble to all L	RRs, unless	otherwise noted.)		Indicators for F	Problematic H	lydric Sc	oils³:	
☐ Histosol (A1)			Sandy Redox (S5)		☐ 2 cm Mu	ck (A10)			
☐ Histic Epipedon (A2)			Stripped Matrix (S6)		☐ Red Par	ent Material (T	F2)		
☐ Black Histic (A3)			Loamy Mucky Mineral (F1)	(except MLRA 1)	☐ Very Sha	allow Dark Sur	face (TF	12)	
☐ Hydrogen Sulfide (A4)			Loamy Gleyed Matrix (F2)		☐ Other (E	xplain in Rema	arks)		
☐ Depleted Below Dark Surfa	ce (A11)		Depleted Matrix (F3)						
☐ Thick Dark Surface (A12)			Redox Dark Surface (F6)		_				
☐ Sandy Mucky Mineral (S1)			Depleted Dark Surface (F7)	)	<sup>3</sup> Indicators of hy wetland hydr	drophytic vege ology must be			
☐ Sandy Gleyed Matrix (S4)			Redox Depressions (F8)			bed or problen		'	
Restrictive Layer (if present):									
ype:									
					rocont?	Yes	$\boxtimes$	No	
Depth (inches):  Remarks:				Hydric Soils Pi	resent				
				Hydric Soils Pi	resent				
Remarks:				Hydric Soils Pr	resent?				
Remarks: YDROLOGY	ne required	l; check all tha	t apply)	Hydric Soils Pr	Secondary Indica		e require	<b>d</b> )	
Remarks:  /DROLOGY  Vetland Hydrology Indicators:	ne required	d; check all tha	it apply) Water-Stained Leaves (B9)		Secondary Indica		•	d)	
Primary Indicators (minimum of c	ne required				Secondary Indica	tors (2 or more	•	d)	
Primary Indicators (minimum of compared Surface Water (A1)	ne required		Water-Stained Leaves (B9)		Secondary Indica  Water-Stair (MLRA 1, 2	tors (2 or more led Leaves (BS	•	d)	
Primary Indicators:  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an	nd 4B)	Secondary Indica  Water-Stair (MLRA 1, 2	tors (2 or more ned Leaves (Bs	9)	d)	
Primary Indicators:  Primary Indicators (minimum of coordinate)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11)	nd 4B)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Po	tors (2 or more ned Leaves (B <sup>0</sup> 1, <b>4A, and 4B)</b> atterns (B10)	(C2)	•	
/DROLOGY  Vetland Hydrology Indicators:  Primary Indicators (minimum of c  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13)	nd 4B)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage P. Dry-Seasor Saturation V	tors (2 or more ned Leaves (BS , <b>4A, and 4B)</b> atterns (B10) n Water Table (	(C2)	•	
Primary Indicators:  Primary Indicators (minimum of of Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1	nd 4B)  ) ) ng Living Roots (C3)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage P. Dry-Seasor Saturation V	tors (2 or more led Leaves (BS 4, <b>4A</b> , <b>and 4B</b> ) atterns (B10) h Water Table ( //sible on Aeria c Position (D2)	(C2)	•	
Primary Indicators:  Primary Indicators (minimum of	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor	nd 4B)  ) ) ng Living Roots (C3) (C4)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Portion No. 1)  Saturation No. 1	tors (2 or more ned Leaves (BS , <b>4A, and 4B)</b> atterns (B10) n Water Table ( //isible on Aeria c Position (D2) uitard (D3)	(C2)	•	
Primary Indicators: Primary Indicators (minimum of	ne required		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (	nd 4B)  )  )  ng Living Roots (C3) (C4) illed Soils (C6)	Secondary Indica  Water-Stair (MLRA 1, 2 Drainage Portion No. 1) Saturation No. 1) Geomorphic Shallow Aquin FAC-Neutra	tors (2 or more ned Leaves (BS , <b>4A, and 4B)</b> atterns (B10) n Water Table ( //isible on Aeria c Position (D2) uitard (D3)	(C2) al Imagei	•	
Primary Indicators (minimum of of the control of t			Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron ( Recent Iron Reduction in Ti	ond 4B)  )  ng Living Roots (C3) (C4)  illed Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS , <b>4A, and 4B)</b> atterns (B10) water Table ( //sible on Aeria c Position (D2) uitard (D3) al Test (D5)	(C2) al Imager	•	
/DROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of of the control of the co	ıl Imagery (		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Till Stunted or Stresses Plants	ond 4B)  )  ng Living Roots (C3) (C4)  illed Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS , 4A, and 4B) atterns (B10) n Water Table ( /isible on Aeria c Position (D2) uitard (D3) al Test (D5)	(C2) al Imager	•	
Primary Indicators (minimum of of the control of th	ıl Imagery (		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Till Stunted or Stresses Plants	ond 4B)  )  ng Living Roots (C3) (C4)  illed Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS , 4A, and 4B) atterns (B10) n Water Table ( /isible on Aeria c Position (D2) uitard (D3) al Test (D5)	(C2) al Imager	•	
Primary Indicators (minimum of of company Indicators)  Primary Indicators (minimum of of company Indicators)  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 Aeria  Sparsely Vegetated Concarried Observations:	ıl Imagery (		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Till Stunted or Stresses Plants	ond 4B)  )  ng Living Roots (C3) (C4)  illed Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS , 4A, and 4B) atterns (B10) n Water Table ( /isible on Aeria c Position (D2) uitard (D3) al Test (D5)	(C2) al Imager	•	
Primary Indicators: Primary Indicators (minimum of or	ıl Imagery ( ive Surface		Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron ( Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)	ond 4B)  )  ng Living Roots (C3) (C4)  illed Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS , 4A, and 4B) atterns (B10) n Water Table ( /isible on Aeria c Position (D2) uitard (D3) al Test (D5)	(C2) al Imager	•	
Primary Indicators (minimum of or surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concertications: Surface Water Present? Water Table Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present?	ıl Imagery ( ıve Surface es □ es □	B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):	nd 4B)  ) ng Living Roots (C3) (C4) iilled Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Pa Dry-Seasor Saturation V Geomorphi Shallow Aq FAC-Neutra Raised Ant	tors (2 or more ned Leaves (BS 4, <b>4A</b> , <b>and 4B</b> ) atterns (B10) h Water Table ( //isible on Aeria c Position (D2) uitard (D3) al Test (D5) Mounds (D6) ( e Hummocks (	(C2) al Imager	•	o [
Primary Indicators: Primary Indicators (minimum of or	ıl Imagery ( ıve Surface es □ es □	B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):	nd 4B)  ) ng Living Roots (C3) (C4) iilled Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Portion Notes of the control o	tors (2 or more ned Leaves (BS 4, <b>4A</b> , <b>and 4B</b> ) atterns (B10) h Water Table ( //isible on Aeria c Position (D2) uitard (D3) al Test (D5) Mounds (D6) ( e Hummocks (	(C2) al Imagel (LRR A)	ry (C9)	) c
Primary Indicators (minimum of or surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concertications: Surface Water Present? Water Table Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present?	ıl Imagery ( ıve Surface es □ es □	B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):	nd 4B)  ) ng Living Roots (C3) (C4) iilled Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Portion Notes of the control o	tors (2 or more ned Leaves (BS 4, <b>4A</b> , <b>and 4B</b> ) atterns (B10) h Water Table ( //isible on Aeria c Position (D2) uitard (D3) al Test (D5) Mounds (D6) ( e Hummocks (	(C2) al Imagel (LRR A)	ry (C9)	o [
Primary Indicators (minimum of or surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeria Sparsely Vegetated Concertications: Surface Water Present? Water Table Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present? Yesturation Present?	ıl Imagery ( ıve Surface es □ es □	B7)	Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, an Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1 Oxidized Rhizospheres alor Presence of Reduced Iron (Recent Iron Reduction in Ti Stunted or Stresses Plants Other (Explain in Remarks)  Depth (inches):  Depth (inches):  Depth (inches):	nd 4B)  ) ng Living Roots (C3) (C4) iilled Soils (C6) (D1) (LRR A)	Secondary Indica  Water-Stair (MLRA 1, 2  Drainage Portion Notes of the control o	tors (2 or more ned Leaves (BS 4, <b>4A</b> , <b>and 4B</b> ) atterns (B10) h Water Table ( //isible on Aeria c Position (D2) uitard (D3) al Test (D5) Mounds (D6) ( e Hummocks (	(C2) al Imagel (LRR A)	ry (C9)	o

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

Project Site:	Parcel 282407-9	<u>9045</u>					City/Coun	ty: King Sampling Date: 1-10-23	
Applicant/Owner:	<u>Novion</u>							State: WA Sampling Point: DP#4	
Investigator(s):	John Altmann, [	Dain Altmann, Ja	son Panz	zera				Section, Township, Range: <u>S28,T24N,R7E</u>	
Landform (hillslope, terr	race, etc.):					Loca	al relief (conca	ave, convex, none): Slope (%):	
Subregion (LRR):	<u>A</u>		Lat:	47.53	<u>439</u>			Long: <u>-121.91626</u> Datum:	
Soil Map Unit Name:								NWI classification:	
Are climatic / hydrologic	conditions on t	the site typical for	this time	of ye	ear?	Υ	′es ⊠	No ☐ (If no, explain in Remarks.)	
Are Vegetation □,	Soil □,	or Hydrology	□, sig	nifica	ntly dis	sturbe		Normal Circumstances" present? Yes 🛛 No 🗆	J
Are Vegetation ☐,	Soil □,	or Hydrology	□, nat	turally	proble	ematic	? (If ne	eded, explain any answers in Remarks.)	
SUMMARY OF FINE	DINGS – Atta	ch site map sh	nowing	sam	pling		t locations,	transects, important features, etc.	
Hydrophytic Vegetation	Present?		Yes		No	$\boxtimes$	Is the Samp	alad Araa	
Hydric Soil Present?			Yes		No	$\boxtimes$	within a We		┚
Wetland Hydrology Pre	sent?		Yes		No	$\boxtimes$			
Remarks: Located 10	)' into upland at	BB-17.							
VEGETATION - Use	scientific na	mes of plants						T	
Tree Stratum (Plot size	e: <u>10</u> )		Absolu % Cov		Domi Speci		Indicator <u>Status</u>	Dominance Test Worksheet:	
1. Alnus rubra			100		yes		FAC	Number of Dominant Species	۸)
2. Prunus emarginata	<u>a</u>		<u>25</u>		<u>ves</u>		<u>FACU</u>	That Are OBL, FACW, or FAC:	A)
3								Total Number of Dominant	В)
4								Species Across All Strata:	رد
50% = <u>62.5</u> , 20% = <u>25</u>	<u>;</u>		<u>125</u>		= Tot	al Cov	er	Percent of Dominant Species That Are ORL, EACH, or EAC: 43	A/B)
Sapling/Shrub Stratum	<u>ı</u> (Plot size: <u>10</u> )							That Are OBL, FACW, or FAC:	,,
1. Acer circinatum			<u>70</u>		<u>yes</u>		<u>FAC</u>	Prevalence Index worksheet:	
2. Rubus spectabilis			<u>50</u>		<u>yes</u>		FAC	Total % Cover of: Multiply by:	
3. Prunus emarginata	<u>a</u>		<u>50</u>		<u>yes</u>		<u>FACU</u>	OBL species x1 =	
4								FACW species x2 =	
5								FAC species x3 =	
50% = <u>85,</u> 20% = <u>34</u>			<u>170</u>		= Tot	al Cov	er	FACU species x4 =	
Herb Stratum (Plot siz	e: <u>10</u> )							UPL species x5 =	
1. Polystichum munit	<u>:um</u>		<u>5</u>		<u>yes</u>		<u>FACU</u>	Column Totals:(A)(B)	
2								Prevalence Index = B/A =	
3								Hydrophytic Vegetation Indicators:	
4								☐ 1 – Rapid Test for Hydrophytic Vegetation	
5								2 - Dominance Test is >50%	
6								☐ 3 - Prevalence Index is ≤3.0¹	
7								4 - Morphological Adaptations¹ (Provide supporting	
8								data in Remarks or on a separate sheet)	
9								5 - Wetland Non-Vascular Plants <sup>1</sup>	
10								☐ Problematic Hydrophytic Vegetation¹ (Explain)	
11								The disease of building and southern the short on the same	
50% = <u>2.5</u> , 20% = <u>1</u>			<u>5</u>		= Tot	al Cov	er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (	Plot size: <u>10</u> )								
1. Rubus ursinus			<u>100</u>		<u>yes</u>		<u>FACU</u>		
2								Hydrophytic  Vegetation Yes □ No □	$\boxtimes$
50% =, 20% = _					= Tot	al Cov	er	Present?	
% Bare Ground in Her	b Stratum	_							
Remarks:									
1									

Project Site: Parcel 282407-9045

Depth Ma	rix			Redox Feat	ures					
inches) Color (moist	) %	<u>6</u> (	Color (moi	ist) %	Type <sup>1</sup> Loc <sup>2</sup>	Texture		Remarks		
<u>0-16</u> <u>10YR4/4</u>	<u>10</u>	<u>)0</u>				silty loam				
		_								
		_								
	-			<del></del>			<del></del>			
		_		<del></del>			<del></del>			
		_								
/pe: C= Concentration, D=	Depletion.		ced Matri	ix. CS=Covered or Coa	ated Sand Grains.	2Location: PL=Por	re Lining, M=Matrix			
dric Soil Indicators: (Ap							ors for Problematic	Hydric Soils	s³:	
Histosol (A1)		•		Sandy Redox (S5)			cm Muck (A10)	•		
Histic Epipedon (A2)				Stripped Matrix (S6)			Red Parent Material	(TF2)		
Black Histic (A3)				Loamy Mucky Minera	al (F1) (except MLRA	1) 🗆 V	/ery Shallow Dark Si	urface (TF12	()	
Hydrogen Sulfide (A4)				Loamy Gleyed Matrix	(F2)		Other (Explain in Rer	narks)		
Depleted Below Dark	Surface (A1	11)		Depleted Matrix (F3)						
Thick Dark Surface (A	2)			Redox Dark Surface	(F6)					
Sandy Mucky Mineral	S1)			Depleted Dark Surface	ce (F7)		ors of hydrophytic ve and hydrology must b			
Sandy Gleyed Matrix (	34)			Redox Depressions (	(F8)		ss disturbed or proble			
strictive Layer (if preser	t):									
oth (inches):					Hydric Soi	ils Present?	Yes		No	2
emarks: No redoximorp										
DROLOGY										
DROLOGY etland Hydrology Indicat	ors:		ok all that	apply)		Secondar	y Indicators (2 or mc	ore required)		
DROLOGY etland Hydrology Indicat mary Indicators (minimum	ors:		ck all that	apply) Water-Stained Leave	es (B9)		y Indicators (2 or mo er-Stained Leaves (1			
DROLOGY etland Hydrology Indicat mary Indicators (minimum	ors: of one req				• •	☐ Wate	-	B9)		
DROLOGY etland Hydrology Indicat mary Indicators (minimum Surface Water (A1)	ors: of one req			Water-Stained Leave	• •	☐ Wate	er-Stained Leaves (I	B9)		
PROLOGY  Itland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4	4A, and 4B)	☐ Wate (ML	er-Stained Leaves (I RA 1, 2, 4A, and 4E	B9)		
PROLOGY tland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3)	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11)	<b>4A</b> , and <b>4B</b> )	☐ Wate (ML) ☐ Drai ☐ Dry-	rer-Stained Leaves (IRA 1, 2, 4A, and 4E inage Patterns (B10)	B9) 3) ⇒ (C2)	(C9)	
PROLOGY  Itland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1)	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od	<b>4A</b> , and <b>4B</b> )	☐ Wate (ML) ☐ Drai ☐ Dry- ☐ Satu	rer-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table	B9)  (C2)  (C3)	(C9)	
DROLOGY  Intland Hydrology Indicate mary Indicators (minimum Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od	4A, and 4B) s (B13) lor (C1) res along Living Roots		rer-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae	B9)  (C2)  (C3)	(C9)	
PROLOGY  Intland Hydrology Indicate  Interpretation (Minimum Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere	4A, and 4B) s (B13) lor (C1) es along Living Roots d Iron (C4)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D	B9)  (C2)  (C3)	(C9)	
PROLOGY  Etland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4)	ors: of one req			Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae smorphic Position (D Illow Aquitard (D3)	B9)  (3)  (4)  (5)  (6)  (7)  (7)  (8)  (8)  (9)  (9)  (9)  (9)  (9)  (9	(C9)	
PROLOGY  Itland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B Drift Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	ors: of one req	quired; ched		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D Illow Aquitard (D3) C-Neutral Test (D5)	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	(C9)	
PROLOGY  Interpretation of the properties of the	ors: of one req 2) 36) Aerial Imag	quired; chec		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	(C9)	
PROLOGY  International Authority (Indicators)  Mary Indicators (Indinum Surface Water (A1))  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (E1)  Inundation Visible on A  Sparsely Vegetated C	ors: of one req 2) 36) Aerial Imag	quired; chec		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	(C9)	
PROLOGY  Etland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated C	ors: of one req 2) 36) Aerial Imag	quired; chec		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	(C9)	
PROLOGY  Patland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (E Inundation Visible on Sparsely Vegetated C  Pld Observations:  Ifface Water Present?	ors: of one req 2) ) Aerial Imag	quired; ched gery (B7) urface (B8)		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F Other (Explain in Rer	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae omorphic Position (D Illow Aquitard (D3) C-Neutral Test (D5) sed Ant Mounds (D6	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	(C9)	
PROLOGY  Patland Hydrology Indicat mary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (E Inundation Visible on Sparsely Vegetated C  Pld Observations: rface Water Present? atter Table Present? turation Present?	ors: of one req 2) ) Aerial Imagoncave Sur	quired; ched gery (B7) urface (B8)		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F Other (Explain in Rer	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae emorphic Position (D Illow Aquitard (D3) S-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks	B9)  (C2)  (C3)  (Final Imagery 2)  (LRR A)	_	
DROLOGY  etland Hydrology Indicat imary Indicators (minimum  Surface Water (A1)  High Water Table (A2  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B3)  Algal Mat or Crust (B4  Iron Deposits (B5)  Surface Soil Cracks (E1)	ors: of one req  2) Aerial Imag oncave Sur  Yes Yes Yes	gery (B7) Irface (B8) No		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F Other (Explain in Rer  Depth (inches): Depth (inches):	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) marks)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae emorphic Position (D Illow Aquitard (D3) S-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks	B9)  (C2)  rial Imagery  (C3)  (C4)  (C5)  (C7)		
DROLOGY etland Hydrology Indicat imary Indicators (minimum Surface Water (A1) High Water Table (A2 Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Surface Soil Cracks (I Inundation Visible on Sparsely Vegetated Celd Observations: urface Water Present? ater Table Present? cludes capillary fringe)	ors: of one req  2) Aerial Imag oncave Sur  Yes Yes Yes	gery (B7) Irface (B8) No		Water-Stained Leave (except MLRA 1, 2, 4 Salt Crust (B11) Aquatic Invertebrates Hydrogen Sulfide Od Oxidized Rhizosphere Presence of Reduced Recent Iron Reductio Stunted or Stresses F Other (Explain in Rer  Depth (inches): Depth (inches):	4A, and 4B) s (B13) lor (C1) res along Living Roots d Iron (C4) on in Tilled Soils (C6) Plants (D1) (LRR A) marks)		er-Stained Leaves (I RA 1, 2, 4A, and 4E inage Patterns (B10) Season Water Table uration Visible on Ae emorphic Position (D Illow Aquitard (D3) S-Neutral Test (D5) sed Ant Mounds (D6 st-Heave Hummocks	B9)  (C2)  rial Imagery  (C3)  (C4)  (C5)  (C7)		

# ATTACHMENT B WETLAND RATING

### **RATING SUMMARY – Western Washington**

Name of wetland (or ID #):	282407-9045	Date of site visit: 1/10/2023
Rated by Altmann	Trained by Ecology? 🗵	Yes No Date of training 03/08 & 03/15
HGM Class used for rating	Slope Wetland	d has multiple HGM classes? ☐ Yes ☑ No
	ot complete with out the figures requested of base aerial photo/map King County iMAP	(figures can be combined).
OVERALL WETLAND CA	ATEGORY III (based on functions	✓or special characteristics □)
1. Category of wetlan	d based on FUNCTIONS	
	Category I - Total score = 23 - 27	Score for each
	Category II - Total score = 20 - 22	function based
X	Category III - Total score = 16 - 19	on three
	Category IV - Total score = 9 - 15	ratings

1

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	L	L	М	
Landscape Potential	L	L	М	
Value	Н	Н	Н	Total
Score Based on Ratings	5	5	7	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	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to im	prove water quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1	ft vertical drop in	
elevation for every 100 ft of horizontal distance)		
Slope is 1% or less	points = 3	0
Slope is > 1% - 2%	points = 2	· ·
Slope is > 2% - 5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0
(use NRCS definitions ):	Yes = 3 No = 0	U
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollu		
Choose the points appropriate for the description that best fits the plants in the		
means you have trouble seeing the soil surface (>75% cover), and uncut mean	is not grazed or	
mowed and plants are higher than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	3
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, 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	points = 0	
	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 first page
S 2.0. Does the landscape have the potential to support the water quality functi	on of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in		0
land uses that generate pollutants?	Yes = 1 No = 0	0
S 2.2. Are there other sources of pollutants coming into the wetland that are		
not listed in question S 2.1?		0
Other Sources	Yes = 1 No = 0	
Total for S 2 Add the points	in the boxes above	0
Rating of Landscape Potential If score is: ☐1 - 2 = M	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,		4
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?		1
At least one aquatic resource in the basin is on the 303(d) list.	Yes = 1 No = 0	ı
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 for the basin in		2
which the unit is found?	Yes = 2 No = 0	
Total for S 3 Add the points	in the boxes above	4
Rating of Value If score is: 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 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 the points appropriate for the description that best fits conditions in the wetland should be thick enough (usually $> 1/8$ in), or dense enough, to remain erect du	l. Stems of plants	0
Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland All other conditions	points = 1 points = 0	ŭ
Rating of Site Potential If score is: ☐1 = M	Record the rating on	the first page
S 5.0. Does the landscape have the potential to support hydrologic functions or	f 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 ☐0 = L	Record the rating on	the first page
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems:		
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	2
Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream	points = 1 points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the points	in the boxes above	2
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the rating on	the first page

NOTES and FIELD 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: <i>Indicators are Cowardin classes and strata within the Forested class</i> . Check the Cowardin plant classes in the wetland. <i>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.</i>	
<ul> <li>☐ Aquatic bed</li> <li>☐ Emergent</li> <li>☐ Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>☐ Forested (areas where trees have &gt; 30% cover)</li> <li>☐ If the unit has a Forested class, check if:</li> <li>☐ 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</li> </ul>	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).	
<ul> <li>□ Permanently flooded or inundated</li> <li>□ Seasonally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Saturated only</li> <li>□ Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>□ Seasonally flowing stream in, or adjacent to, the wetland</li> </ul>	1
<ul><li>□ Lake Fringe wetland</li><li>□ Freshwater tidal wetland</li><li>2 points</li><li>2 points</li></ul>	
H 1.3. Richness of plant species  Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> .  Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle  If you counted: > 19 species points = 2  5 - 19 species points = 1	1
< 5 species points = 0	
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 = 3 points	2

Wetland name or numberA	
H 1.5. Special habitat features:  Check the habitat features that are present in the wetland. <i>The number of checks is the number</i>	
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)	4
☐ 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 ( <i>structures for egg-laying by amphibians</i> ) ☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants ( <i>see</i>	
H 1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	10
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include <i>only habitat that directly abuts wetland unit</i> ).	
Calculate:  0.4 % undisturbed habitat + ( 3.4 % moderate & low intensity land uses / 2 ) = 2.1%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
<pre>&lt; 10 % of 1 km Polygon points = 0</pre>	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.  Calculate:	
78.6 % undisturbed habitat + ( 12.7 % moderate & low intensity land uses / 2 ) = 84.95%	
Undisturbed habitat > 50% of Polygon points = 3	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	•
> 50% of 1 km Polygon is high intensity land use points = (-2)	0
≤ 50% of 1km Polygon is high intensity points = 0  Total for H 2 Add the points in the boxes above	3
Total for H 2  Add the points in the boxes above  Rating of Landscape Potential If Score is: 4 - 6 = H  1 - 3 = M  1 - 1 = L Record the rating on	
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</i>	
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)	
<ul><li>☐ It is mapped as a location for an individual WDFW priority species</li><li>☐ It is a Wetland of High Conservation Value as determined by the</li></ul>	2
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 poyt page) with in 100m	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1 Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: $\bigvee$ 2 = H $\bigcirc$ 1 = M $\bigcirc$ 0 = L Record the rating on	the first nega

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/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: **NOTE**: This question is independent of the land use between the wetland unit and the priority habitat. Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). ☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above ). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page ). Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. ☐ **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. ☐ **Talus**: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

### **RATING SUMMARY – Western Washington**

Name of wetland (or ID #):	282407-9045		Date of site visit:	1/10/2023
Rated by Altmann	Trained by	Ecology? ☑ Yes ☐ No	Date of training	03/08 & 03/15
HGM Class used for rating	Slope	Wetland has multip	e HGM classes? ☐	Yes ☑No
	ot complete with out the figures of base aerial photo/map King Cou	, -	be combined).	
OVERALL WETLAND CA	ATEGORYIII(based o	n functions	l characteristics □)	ı
1. Category of wetlan	d based on FUNCTIONS	_		
	Category I - Total score = 23 - 27	,	Score for each	
	Category II - Total score = 20 - 2	2	function based	
X	Category III - Total score = 16 -	19	on three	
	Category IV - Total score = 0 - 15	; I	ratings	

1

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	L	L	М	
Landscape Potential	L	L	М	
Value	Н	Н	Н	Total
Score Based on Ratings	5	5	7	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	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	х

SLOPE WETLANDS		
	unrova water avality	
Water Quality Functions - Indicators that the site functions to im	iprove water quality	
S 1.0. Does the site have the potential to improve water quality?	<u> </u>	
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1	ft vertical drop in	
elevation for every 100 ft of horizontal distance)		
Slope is 1% or less	points = 3	0
Slope is > 1% - 2%	points = 2	_
Slope is > 2% - 5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		3
(use NRCS definitions ):	Yes = 3 No = 0	3
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollu		
Choose the points appropriate for the description that best fits the plants in the		
means you have trouble seeing the soil surface (>75% cover), and uncut mean	is not grazed or	
mowed and plants are higher than 6 in.		
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	2
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > 1/4 of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
· ·	in the boxes above	5
Rating of Site Potential If score is: 12 = H 6 - 11 = M 0 - 5 = L	December 1100 motions on	(1 C (
Training of Site Potential in Score is.   12 - 11   0 - 11 - M   0 - 3 - L	Record the rating on	the first page
S 2.0. Does the landscape have the potential to support the water quality function		the first page
S 2.0. Does the landscape have the potential to support the water quality functi		, -
		the first page
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	on of the site?	, -
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in	on of the site?	, -
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are	on of the site?	0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0	0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0  in the boxes above	0 0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0	0 0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0 in the boxes above  Record the rating on	0 0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0 in the boxes above  Record the rating on	0 0 the first page
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M  0 = L	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0 in the boxes above  Record the rating on	0 0
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M  0 = 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,	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0 in the boxes above  Record the rating on ?	0 0 the first page
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M  0 = 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?	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0 in the boxes above  Record the rating on ?	0 0 the first page
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is: □1 - 2 = M  □0 = 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?  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.	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0  in the boxes above  Record the rating on  ?  Yes = 1 No = 0  Yes = 1 No = 0	0 0 the first page
S 2.0. Does the landscape have the potential to support the water quality function S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M  0 = 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?  S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue?	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0  in the boxes above  Record the rating on  ?  Yes = 1 No = 0  Yes = 1 No = 0	0 0 the first page
S 2.0. Does the landscape have the potential to support the water quality functions 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is: 1 - 2 = M	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0  in the boxes above  Record the rating on  ?  Yes = 1 No = 0  Yes = 1 No = 0	0  0  the first page
S 2.0. Does the landscape have the potential to support the water quality functions 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?  S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?  Other Sources  Total for S 2  Add the points  Rating of Landscape Potential If score is:  1 - 2 = M  0 = 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?  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.  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 for the basin in which the unit is found?	on of the site?  Yes = 1 No = 0  Yes = 1 No = 0  in the boxes above  Record the rating on  ?  Yes = 1 No = 0  Yes = 1 No = 0	0  0  the first page

OLODE WETLANDO		
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		
the points appropriate for the description that best fits conditions in the wetland	-	
should be thick enough (usually $> 1/8$ in), or dense enough, to remain erect du	ring surface flows.	0
Dense, uncut, <b>rigid</b> 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 0 = L	Record the rating on	the first page
S 5.0. Does the landscape have the potential to support hydrologic functions of	the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land		0
uses or cover that generate excess surface runoff?	Yes = 1 No = 0	U
Rating of Landscape Potential If score is:  1 = M  0 = L	Record the rating on	the first page
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems:		
The sub-basin immediately down-gradient of site has flooding		
problems that result in damage to human or natural resources (e.g.,		2
houses or salmon redds)	points = 2	2
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	
S 6.2. Has the site been identified as important for flood storage or flood	•	0
conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the points	in the boxes above	2
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on the first page		the first page

NOTES and FIELD 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 or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.	
<ul> <li>□ Aquatic bed</li> <li>□ Emergent</li> <li>□ Scrub-shrub (areas where shrubs have &gt; 30% cover)</li> <li>□ Forested (areas where trees have &gt; 30% cover)</li> <li>□ If the unit has a Forested class, check if:</li> <li>□ 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</li> </ul>	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).	
<ul> <li>□ Permanently flooded or inundated</li> <li>□ Seasonally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Occasionally flooded or inundated</li> <li>□ Saturated only</li> <li>□ Permanently flowing stream or river in, or adjacent to, the wetland</li> <li>□ Seasonally flowing stream in, or adjacent to, the wetland</li> </ul>	1
<ul><li>□ Lake Fringe wetland</li><li>□ Freshwater tidal wetland</li><li>2 points</li></ul>	
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft <sup>2</sup> . 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	1
If you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0	
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	2
All three diagrams in this row are HIGH = 3 points	

Wetland name or numberB	
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number</i>	
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) <b>and/or</b> overhanging plants extends	
at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at	2
least 33 ft (10 m) ☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning	2
(> 30 degree slope) OR signs of recent beaver activity are present ( <i>cut shrubs or trees</i>	
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	8 #s = 5 = 4 = 2 = 2
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	tne tirst page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
0.5 % undisturbed habitat + ( 3.6 % moderate & low intensity land uses / 2 ) = 2.3%	
If total accessible habitat is:	0
	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2 10 - 19% of 1 km Polygon points = 1	
<ul> <li>10 - 19% of 1 km Polygon</li> <li>2 10 % of 1 km Polygon</li> <li>3 points = 1</li> <li>4 points = 1</li> <li>5 points = 1</li> </ul>	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
78.9 % undisturbed habitat + ( 12.4 % moderate & low intensity land uses / 2 ) = 85.1%	
	3
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	
> 50% of 1 km Polygon is high intensity land use points = (-2)	0
≤ 50% of 1km 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 -	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</i>	
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)	
<ul><li>☐ It is mapped as a location for an individual WDFW priority species</li><li>☐ It is a Wetland of High Conservation Value as determined by the</li></ul>	2
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) with in 100m 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	4h a fi4

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

Wetland name or number E	В
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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/

	ow many of the following priority habitats are within 330 ft (100 m) of the wetland unit: <b>NOTE</b> : This 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).
	<b>Biodiversity Areas and Corridors</b> : 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.
	<b>Oregon White Oak</b> : 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</i> – see web link above).
<b>✓</b>	<b>Riparian</b> : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
	<b>Westside Prairies</b> : 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> ).
<b>V</b>	<b>Instream</b> : The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
	<b>Nearshore</b> : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. ( <i>full descriptions of habitats and the definition of relatively undisturbed are in WDFW report</i> – see web link on previous page).
	<b>Caves</b> : 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.
	<b>Talus</b> : 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.
<b>V</b>	<b>Snags and Logs</b> : 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.

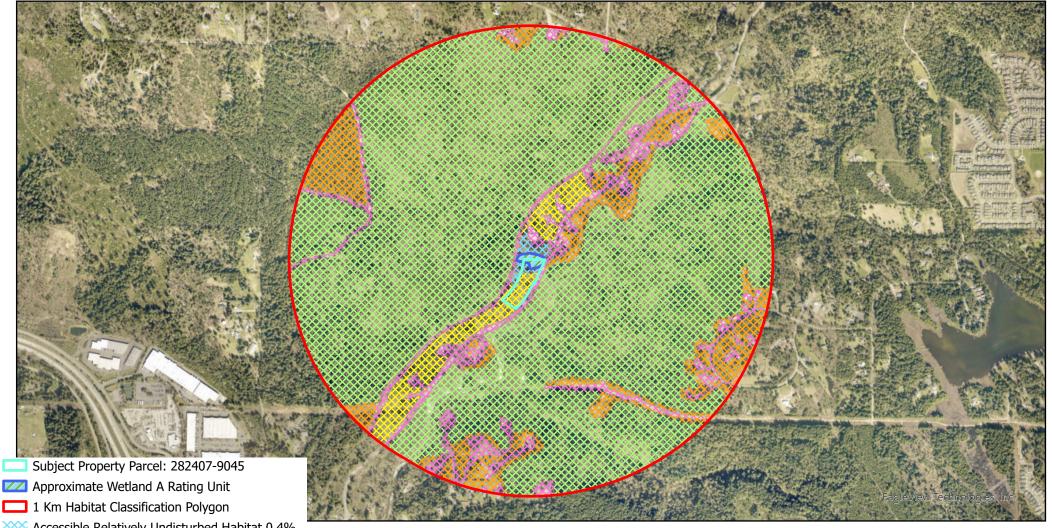
Carnation, WA 98014 Office (425) 333-4535 Fax (425) 333-4509

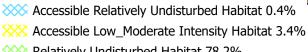
Environmental Planning & Landscape Architecture

King County Parcel 282407-9045

# Figure A

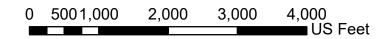
AOA - 5278





Relatively Undisturbed Habitat 78.2%

Low\_Moderate Intensity Habitat 9.3% WW High Intensity Habitat 8.7%





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King County Parcel 282407-9045

# Figure B

AOA - 5278

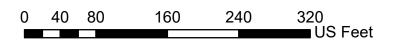




Approximate Wetland A Rating Unit

150' Pollution Assessment Polygon

Pollution Generating Surfaces 13.0%





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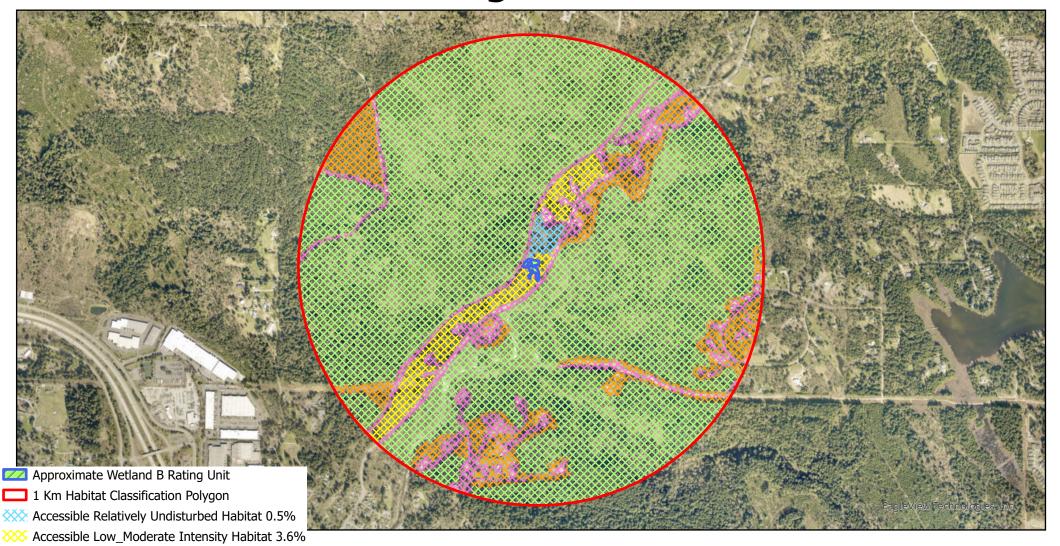
Environmental Planning & Landscape Architecture

King County Parcel 282407-9045

## Figure A

AOA - 5278

4,000 US Feet



5001,000

2,000

3,000



Relatively Undisturbed Habitat 78.4%

**XXX** Low\_Moderate Intensity Habitat 8.8%

Wigh Intensity Habitat 8.7%

Carnation, WA 98014

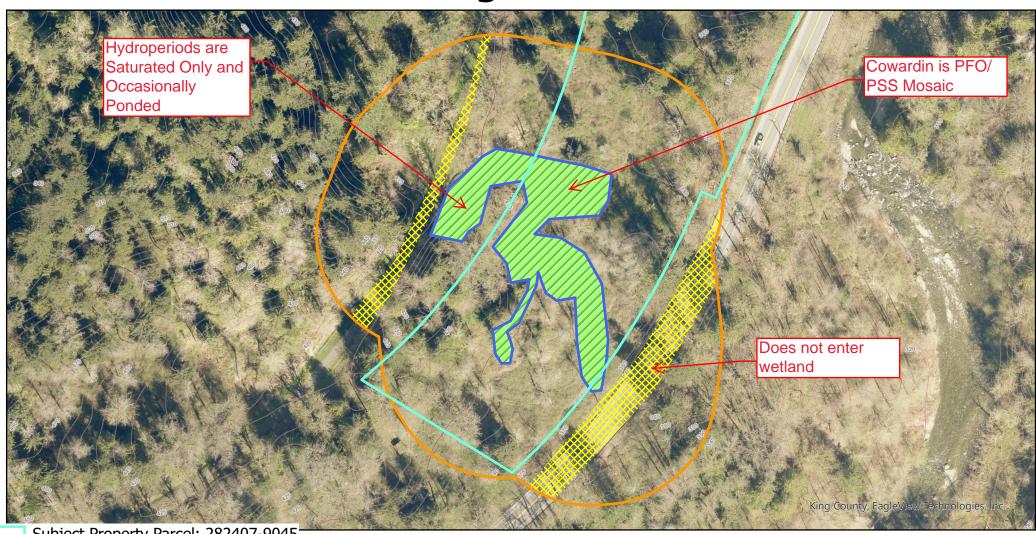
Office (425) 333-4535 Fax (425) 333-4509

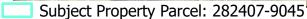
Environmental Planning & Landscape Architecture

King County Parcel 282407-9045

## Figure B

AOA - 5278

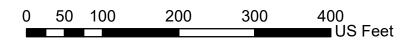




Approximate Wetland B Rating Unit

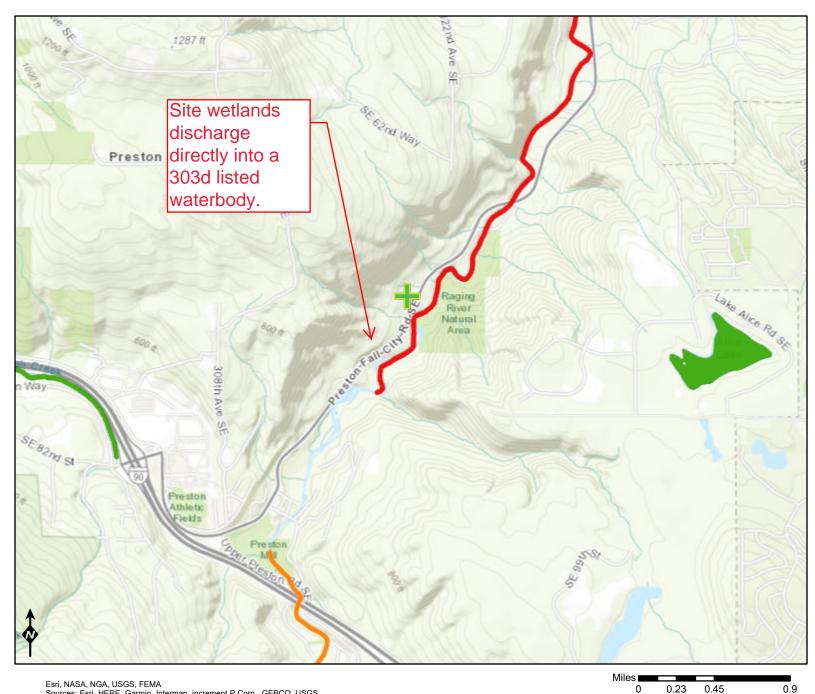
150' Pollution Assessment Polygon

Pollution Generating Surfaces 9.9%





## Figure C



#### **Assessed Water/Sediment**

#### Water

Category 5 - 303d Category 4C

Category 4B

Category 4A

Category 2 Category 1

#### Sediment

Category 5 - 303d Category 4C

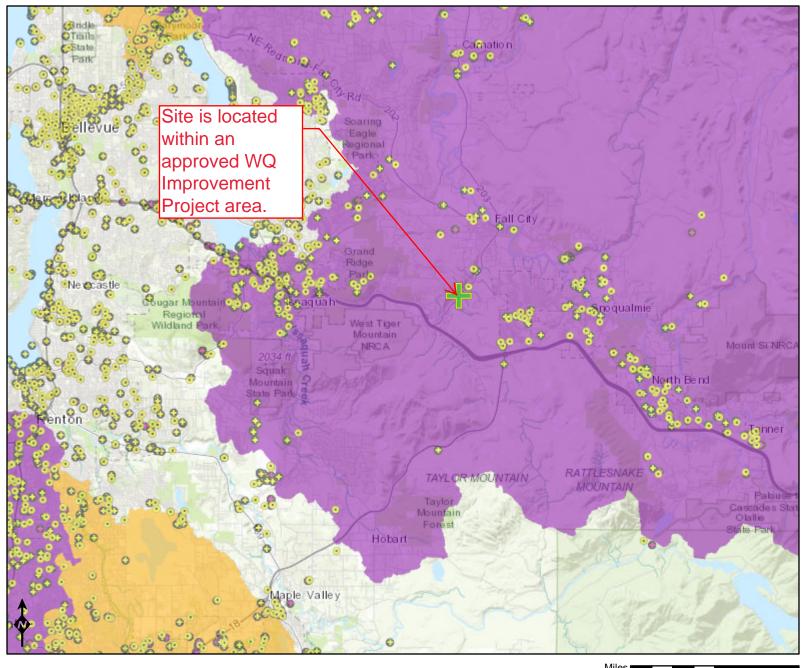
Category 4B

Category 4A

Category 2

Category 1

## Figure D



#### **WQ Permitted Outfalls**

Outfall - Groundwater Outfall - Surface Water Outfall - Other

Associated Facility

#### **WQ Improvement Projects**

Approved In Development

