

Sewall Wetland Consulting, Inc.

PO Box 880 Fall City, WA 98024 Phone: 253-859-0515

March 15, 2023

Hanson Sisters, LLC 18820 3rd Ave NE Arlington, Washington 98223

RE: Parcel #31051900401200 – Critical Area Report City of Marysville, Washington SWC Job #18122

This report describes our observations of any jurisdictional wetlands, streams or buffers on or within 200' of (Parcel #31051900401200) located at 17406 19th Avenue NE in the City of Marysville, Washington (the "site"). The site is located in Section 29, Township 31 North, Range 5 east of the W.WM.

The site is an irregular shaped 18.87 acre agricultural property used for growing hay, corn and other crops. A single family home, as well as a barn, several small outbuildings and associated gravel driveway are located on the site.

METHODOLOGY

Ed Sewall of Sewall Wetland Consulting, Inc. inspected the site between February and May 30 of 2018. The site was re-inspected in March of 2023 and conditions remain the same.

The site was reviewed using methodology described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), and the *Western Mountains, Valleys and Coast region Supplement* (Version 2.0) dated June 24, 2010, as required by the US Army Corps of Engineers.



Above: Snohomish County Parcel Map of the site.

Given the mapped Custer and Norma soil series on the north and east side of the site, hydrology monitoring in the early growing season was used to verify if wetland hydrology exists on this agricultural field.

Previous information from NRCS indicates that there is such a high degree of disturbance to historical hydrology of the Custer soils in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required period of time.

The presence of wetland hydrology is the driving force behind wetland presence, without wetland hydrology, an area does not meet wetland criteria. Therefore, only areas on the site that contain all three parameters during the early growing season meet the definition of a wetland. Areas that do not have hydrology do not meet wetland criteria and are considered upland.

In order to determine what portion of the site contained wetland hydrology, an analysis of wetland hydrology was conducted throughout the site.

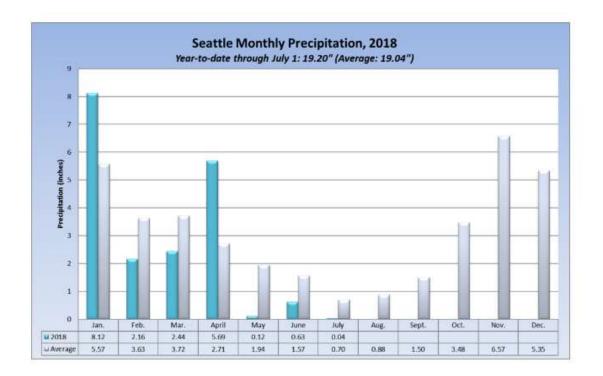
Site Hydrology Monitoring Methods

A total of 18 data points (soil pits) were sampled to determine if wetland vegetation, soils and hydrology was present on the site within 12" of the soil surface.



Above: Data point locations on the site

The site was visited between February 28th and May 25 of 2018 to collect hydrology data.



Rainfall in the region was above normal for January and April and less in May, but on average, rainfall was normal between Jan and May of 2018. Normal rainfall for this period is 17.57" and in 2018 18.53" of rain fell in this period, which slightly above normal (105%).

At each sample point soil pit was excavated -18" deep. At each pit observations of the level of standing water and/or soil saturation (if any) were recorded.

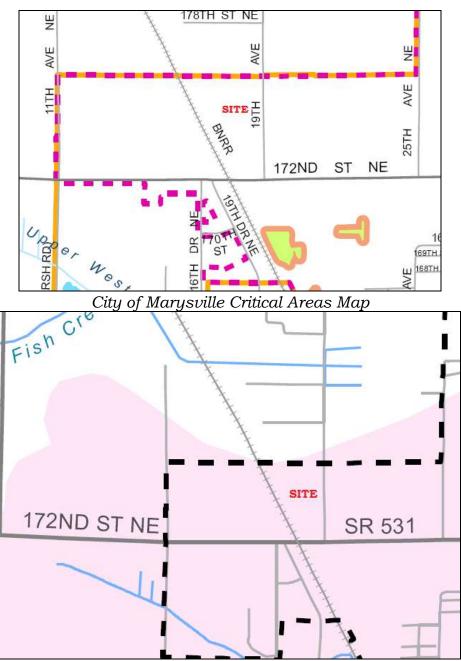
OBSERVATIONS

Existing Site Documentation.

Prior to visiting the site, a review of several natural resource inventory maps was conducted. Resources reviewed included the City of Marysville Critical Areas map, National Wetland Inventory Map, the NRCS Soil Survey online mapping and Data, WADNR Fpars stream mapping and the WDFW Priority Habitats mapping website.

City of Marysville Critical Areas Map

According to the City of Marysville Critical Areas Maps, there are no wetlands or streams on the site



Above: City of Marysville Stream mapping.

National Wetlands Inventory (NWI)

The NWI map depicts the southern edge of an emergent and forested wetland located primarily off-site to the north along the north edge of the site.



Above: NWI Map of the area of the site.

Soil Survey

According to the NRCS Soil Mapper website, the site is mapped as Custer fine sandy loam in the center and eastern side of the site. The north edge of the site is mapped as poorly drained Norma Soils, and the southwest side, Kitsap silt loam. Both the Norma and Custer soils when not drained, are considered hydric or wetland soils.

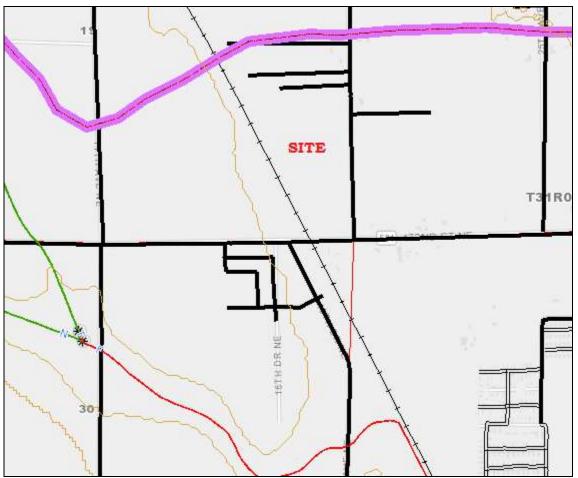
According to Soil Survey of Snohomish County Area, Washington (Debose and Klungland, 1983) the site is mapped as Custer fine sandy loams. Custer soils (soil unit #13) are poorly drained soils formed in outwash plains. According to local NRCS scientists, Custer soils have such a high degree of disturbance to historical hydrology in the vicinity of the site that the only sure determination if the soil was hydric was to observe wetland hydrology in the early growing season over the required continuous period of time.



Above: NRCS Soil map of the study area.

WADNR Fpars

The WADNR Fpars stream typing map for the site there are no streams on or near the site.



Above WDNR Fpars Stream Typing map.

WDFW Priority Habitats

According to the WDFW Priority Habitats mapping website, there are no priority habitats on the site. The wetlands identified on the NWI maps have been replicated on this map as wetlands are considered priority habitats.



Above: WDFW Priority Habitats Map of the site

Field observations

Uplands

The site has a high point along the west boundary which borders the railroad tracks. The site slopes down gradually towards 19th Avenue NE.

An existing farm house as well as a barn and several outbuildings are located near the center of the site. A gravel driveway accesses the home from 19th Avenue NE on the east.

Several roadside storm drainage ditches are located along the property, one along the edge of 19th Avenue NE, one along portions of the west edge of the site near the railroad tracks collecting railroad track runoff, one along SR531 collecting road and development runoff, and one agricultural ditch, through the center of the site.

These ditches are man-made agricultural drainage ditches which carry storm water from properties to the north, west and east of the site. The drainage from these ditches join and drain southerly under SR 531 in a

ditch along the east side of the railroad tracks, eventually draining into the West Fork of Quilceda just at the fish screens on the Sather property. These ditches convey runoff from "Pollutant Generating Surfaces" (Roads) and this is "permitted" as a Municipal Separated Storm Sewer System (MS4) through the City of Marysville Phase II NPDES Permit. These ditches clearly carry storm water runoff from SR531 to the north and west, as well as other recently developed properties east of 19th Avenue NE.

Both the Federal and State Water Pollution Control Regulations (State rules RCW 90.48.080 specifically) do not allow the discharge of polluted water in the "Waters of the State". The Municipality is also responsible for this MS4 up to its discharge into receiving water. In this case, that would be West Fork Quilceda Creek south of the Fish Screens. By Permit, only treated water is supposed to be discharged into a "receiving water". The ditches north of the fish screens are clearly used as part of the City's storm water system, and a ditch permitted as a MS4 cannot at the same time be called a "water of the state".

These ditches are not streams or wetlands. The closest stream being the West Fork of Quilceda located 2,800' south of the site. A fish screen has been placed at the point 2,800' south of the site at WDFW's approval specifically to prevent any fish from migrating into the man-made and artificially created drainage ditch south and west of the site, that the sites ditch flows into.

The site is regularly plowed and planted with hay, corn or rye on an annual basis and has been a farm since the site was homesteaded in the 1800's. Old drainage tiles were observed in several areas and subsurface drainage throughout the field is probably present, as was typical for farms in this area.

At the time of our winter-spring sampling the field was covered in growing rye.

Soil pits excavated throughout the site were very mixed and varied, with loam in the western area of the site and some dense silty loam and sandy loam and loamy sand on the eastern side of the site.

Several points were observed to have soil saturation (DP #1, 6,7, 8, 10 and 16) at some point within 16" of the surface (see attached hydrology

monitoring results). However, none of these observations were close enough to the surface and for prolonged enough to meet wetland hydrology criteria.

Potential Off-site wetland

The area off-site to the north, which has been mapped by the NWI maps as wetland, has a small area that may be wetland.

Our observations were limited to the northern site boundary and looking across the 4' deep drainage ditch to the property to the north. A small area north of the western side of the site was observed to have a mix of birch, some salmonberry and patches of slough sedge. We do not know the soil characteristics or hydrology of this area as we have no access to it. We never observed any surface water in this area, although its possible soil saturation was present in the early growing season. It possible that the area was wet and was drained years ago by the agricultural drainage ditch or it is still marginally wetland and meets wetland hydrology criteria as hydrophytic vegetation was visibly present.

For the purposes of this study, and given the NWI mapping, we assumed this area with visible wetland vegetation, located off-site to the north is wetland. However, this can only be positively confirmed by an on-site review of this off-site area for which we had no permission.

City of Marysville Code (MMC 22E.010.060 Wetland rating and classification) states: Wetlands shall be classified as Category I, II, III, or IV using the Washington State Department of Ecology's Wetland Rating System for Western Washington, Publication No. 04-06-025, or as amended hereafter. As a result the wetland area was rated using the 2014 Wetland Rating system.



Above: Location of potential Category IV off-site wetland.

Using the 2014 WADOE Wetland Rating system and rating the wetland as a depressional wetland, this wetland scored a total of 15 points with 5 for habitat. This indicates a Category IV wetland. Category IV wetlands in the City of Marysville have a 35' buffer measured from the wetland edge.

Proposed Project

The proposed project is the construction of 247 single family dwelling units and associated infrastructure as depicted on the attached Land Technologies *"Hanson Sisters, LLC Preliminary Plat Plan"*. The 35' buffer of the possible Category IV wetland off-site to the north extends onto the west side of the northern property line. All development has been designed to avoid the 35' buffer.

If you have any questions in regards to this report or need additional information, please feel free to contact me at (253) 859-0515 or at <u>esewall@sewallwc.com</u>.

Sincerely, Sewall Wetland Consulting, Inc.

Sent

Ed Sewall Senior Wetlands Ecologist PWS #212

Attached: Data Sheets Rating Form & Exhibits

REFERENCES

Cowardin, L., V. Carter, F. Golet, and E. LaRoe. 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service, FWS/OBS-79-31, Washington, D. C.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1. U. S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, Mississippi.

Muller-Dombois, D. and H. Ellenberg. 1974. Aims and Methods of Vegetation Ecology. John Wiley & Sons, Inc. New York, New York.

Munsell Color. 1988. Munsell Soil Color Charts. Kollmorgen Instruments Corp., Baltimore, Maryland.

National Technical Committee for Hydric Soils. 1991. Hydric Soils of the United States. USDA Misc. Publ. No. 1491.

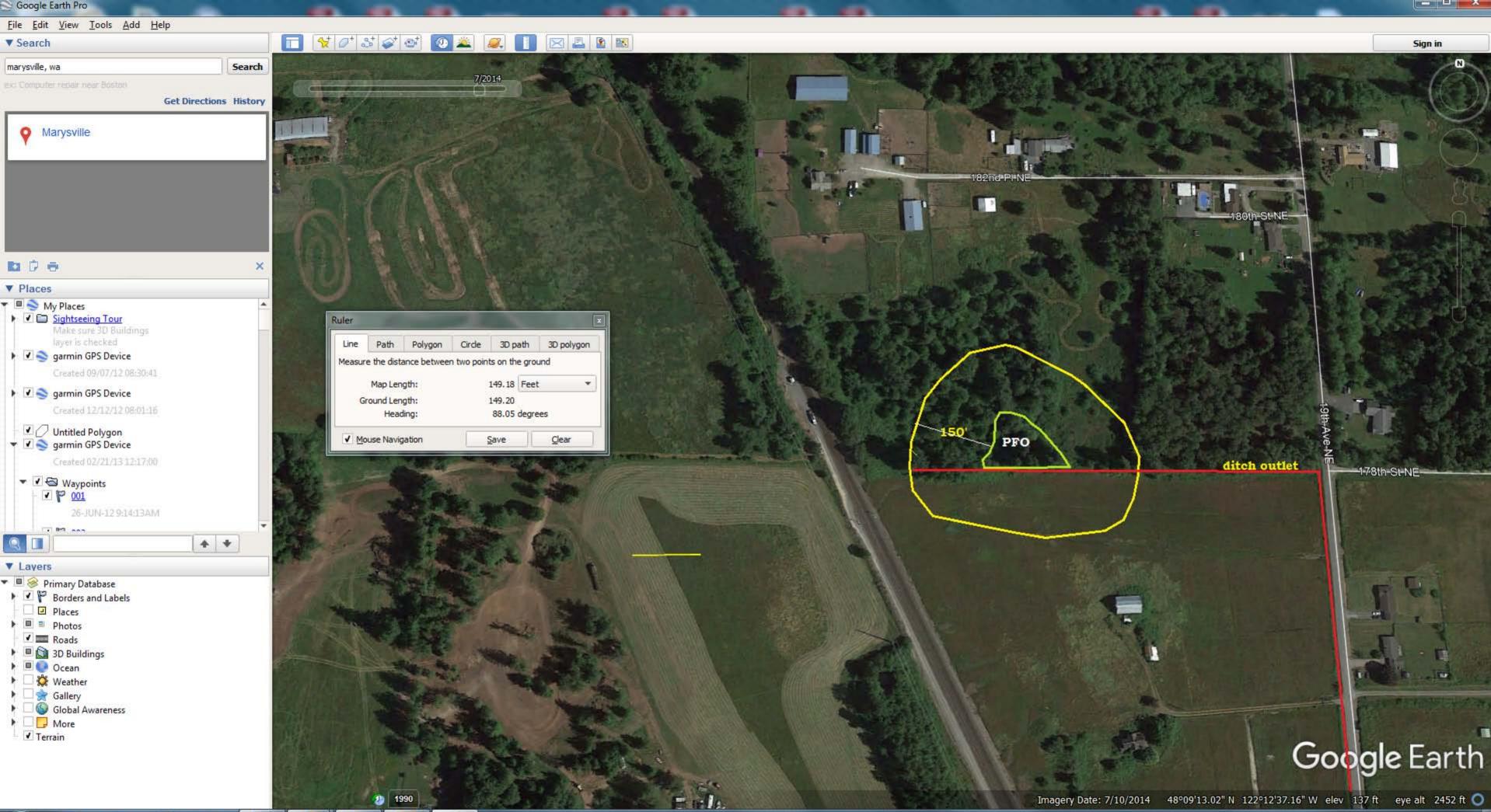
Reed, P., Jr. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). 1988. U. S. Fish and Wildlife Service, Inland Freshwater Ecology Section, St. Petersburg, Florida.

Reed, P.B. Jr. 1993. 1993 Supplement to the list of plant species that occur in wetlands: Northwest (Region 9). USFWS supplement to Biol. Rpt. 88(26.9) May 1988.

USDA NRCS & National Technical Committee for Hydric Soils, September 1995. Field Indicators of Hydric Soils in the United States - Version 2.1

City of Marysville Municipal Code





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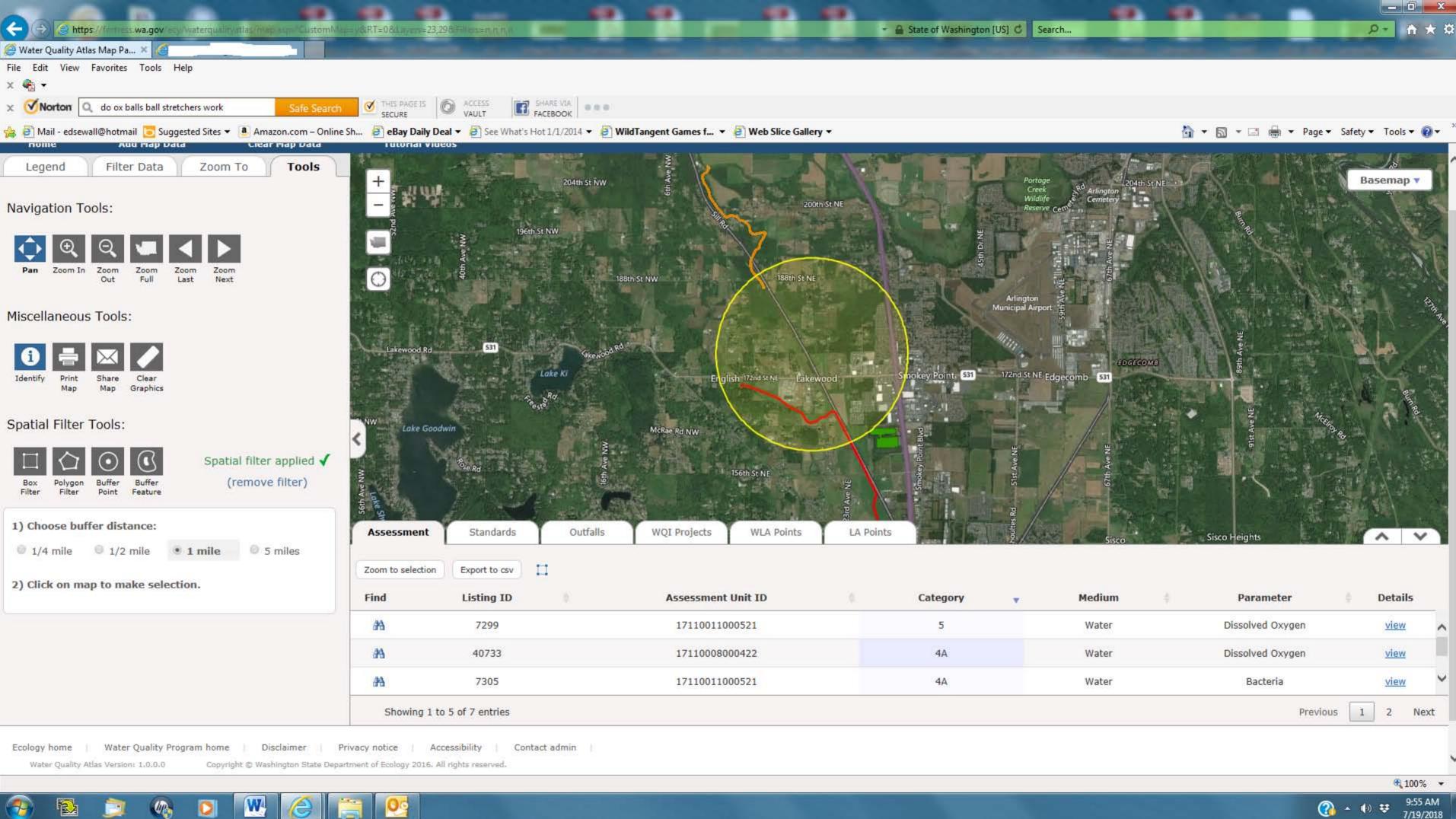
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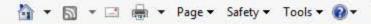


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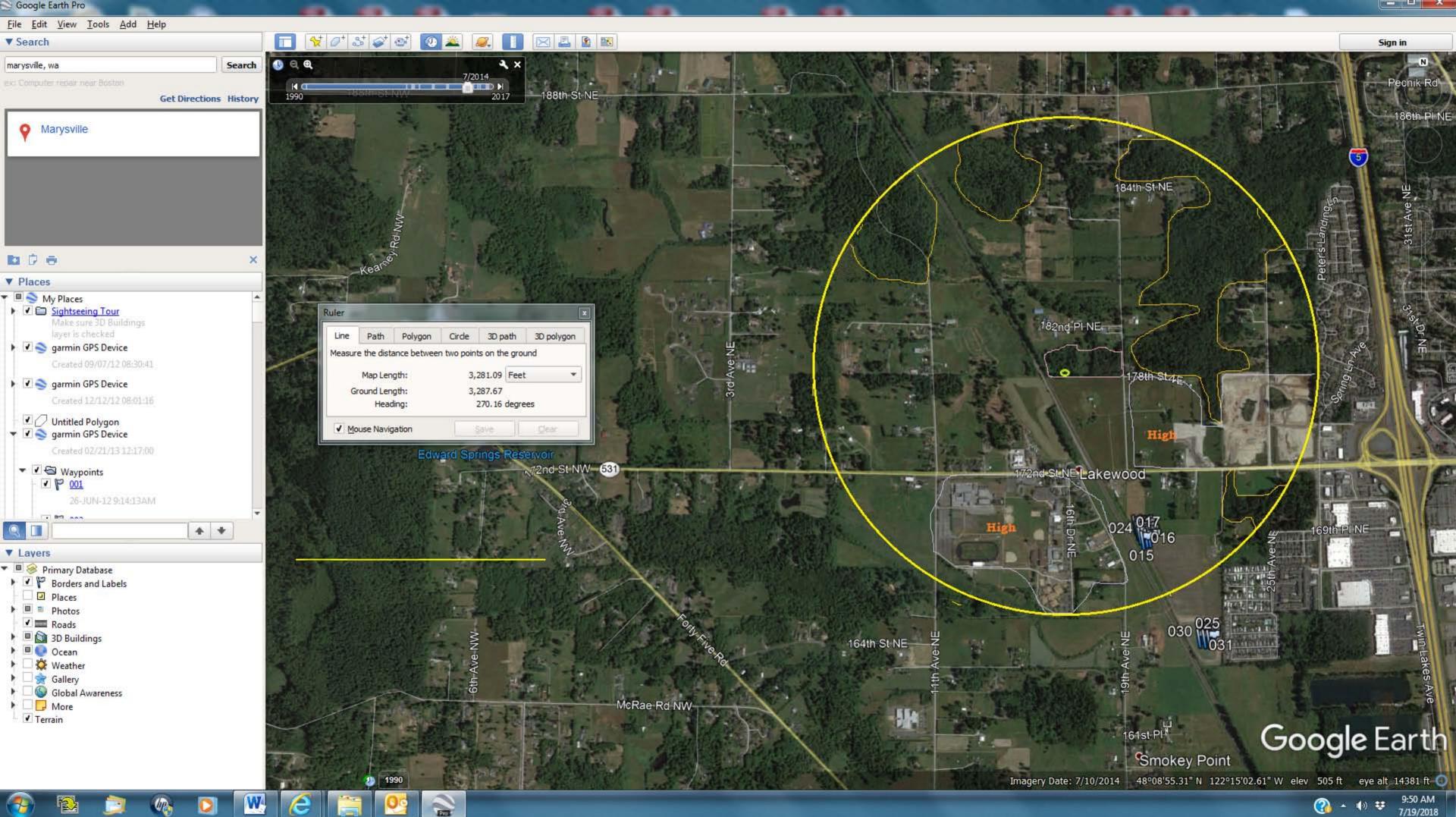
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US Army Corps of Engineers

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······································		
		Hydrophytic Vegetation Indicators:
		Prevalence Index is s3.0 ¹
		data in Remarks or on a separate sheet)
		Wetland Non-Vascular Plants
		Problematic Hydrophytic Vegetation' (Explain)
		Indicators of hydric soll and wetland hydrology must
		be present, unless disturbed or problematic.
ody Vine Stratum (Plot size:)	* Total Cover	
ALLER MINING (FOR THE ALLER		Hydrophytic
		Vegetation
	Total Cover	Present? Yes No
Jare Ground in Herb Stratum		
narks:		

terre weenterster fanser.	be to the depth nes	ided to document the indicator or o	confirm the ab	sence of indicators.)
Netri	د	Redox Features		
inches) Color (moist)	<u>%</u> Cc	ior (moist) % Type t	oc' Text	ureRemarks
a loyn;	1/z.			n m
11 10 14-	11-1	and an	10	
			man al	
		ced Matrix, CS=Covered or Costad S		² Location: PL=Pore Lining, M=Matrix,
ydric Solf Indicators: (App		, uniesa otherwise noted.)		dicators for Problematic Hydric Soils ³ :
Histosol (A1)	s	andy Redox (S5)		_ 2 cm Muck (A10)
Histic Epipedon (A2)		tripped Matrix (S6)		Red Parent Materiel (TF2)
_ Black Histic (A3)		oamy Mucky Mineral (F1) (except MI	.RA 1)	_ Other (Explain in Remarks)
Hydrogen Sulfide (A4)		oanny Gleyed Matrix (F2)		
Depleted Below Dark Sur		epieted Matrix (F3)		
_ Thick Dark Surface (A12)		tedox Dark Surface (F6)	°N	ndicators of hydrophytic vegetation and
Sandy Mucky Minaral (S1		episted Dark Surface (F7)		watiand hydrology must be present,
Sandy Gleyed Matrix (S4		edox Depressions (F8)		unless disturbed or problematic.
estrictive Layer (if present	<u>):</u>			
Type:				,
Depth (inches):			Hydr	ic Soll Present? Yes No
emarka:				
	~	10 ordie-hr.	5	3
		10 ordie-hr.	<i>s</i>	,
Vetland Hydrology Indicato	A		ر ب	,
Vetland Hydrology Indicato	A	ck ati that aqpiy)		, Secondary indicators (2 or more required)
reliand Hydrology Indicato	A			' Secondery Indicators (2. or more reparted)
felland Hydrology Indicato Timery Indicators (minimum Surface Water (A1)	A	ck ati that aqpiy)		
fetland Hydrology Indicato Timery Indicators (minimum : Surface Water (A1) High Water Table (A2)	A	ck all that apply) Water-Steined Leaves (B9) (exce		Water-Steined Leaves (89) (MLRA 1, 2,
fetiand Hydrotogy Indicato Timery Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3)	re: of one required; che	<u>ck el Ibs(apply)</u> <u>Water-Steined Leaves (69) (exce</u> 1, 2, 4A, and 48) Set Crust (611)		Water-Steined Leaves (B9) (MLRA 1, 2, 4A, and 4B)
feliand Hydrotogy Indicato timary Indicators (minimum : Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	re: of one required; che	 <u>ck sil Ihat apply</u> <u>Water-Stained Leaves</u> (B9) (exce 1, 2, 4A, and 4B) <u>Salt Cruzi (B11)</u> <u>Aquatic Invertebrates (B13)</u> 		Water-Steined Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patients (B10)
feliand Hydroiogy Indicato trimery Indicators (minimum : Surface Water (A1) High Water Table (A2) Seturation (A3) Water Marks (B1) Sediment Deposits (B2)	ra: 21 one required; che	ck sil ibst apply) 	pt MLRA	Water-Steined Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (S10) Dry-Sesson Water Table (C2) Saturation Visible on Aerial Imagery (C6
fellend Hydrology Indicato Unary Indicators (minimum) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3)	ra: 21 one required; che	ck all Ibat, apply) 	pt MLRA	Water-Steined Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patients (S10) Dry-Season Water Table (C2) Seturation Visible on Annal Imagery (C6 Geomorphic Position (D2)
lettend Hydrology Indicato Unwry Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drit Deposits (B3) Algel Nat or Crust (B4)	ra: 21 one required; che	K sil Ibat spoly) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Saft Crust (S11) Aquatic Invertebrates (B13) Hydrogen Sutifie Odor (C1) Oxidized Rhizospheres elong Livit Presence of Reduced Iron (C4)	npt MLRA	Water-Steined Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Seeson Water Table (C2) Saturation Visible on Aerial Imagery (C6 Geomorphic Position (D2) Shallow Aquitard (D3)
retland Hydrology Indicato tituery indicators (minimum) — Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Sediment Deposits (B2) — Drift Deposits (B3) — Algel Mator Crust (B4) — Iron Deposits (B5)	ra: 21 one required; che	Ck. eli Ibat apply)	npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C6 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
teliand Hydrology Indicato tituery Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Aligh Nat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	ra: clane required; che	ck all that apply) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Selt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhizospheres along Lini Presence of Reduced Iron (C4) Recent Ion Reduction In Titled S Stunted or Stressed Plants (D1) (npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
ietiand Hydrology Indicato tinary Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drith Deposits (B3) Iron Deposits (B3) Surface Soil Cracks (B6) Involution Visible on Aar	ra: of one required, che done required, che dai imegery (B7)	Ck. eli Ibat apply)	npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C6 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
retland Hydrology Indicato tituery Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drit Deposits (B3) Agai Mator Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Invindation Visible on Aar Sparsely Vegetatod Com	ra: of one required, che done required, che dai imegery (B7)	ck all that apply) Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) Selt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhizospheres along Lini Presence of Reduced Iron (C4) Recent Ion Reduction In Titled S Stunted or Stressed Plants (D1) (npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
reliand Hydrology Indicato tinuery indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Agai Mator Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Invidation Visible on Aer Sparsely Vegetatod Corror feld Observations:	ra: clone required, che clone required, che sei imegery (B7) seve Surface (B6)	Ck sil that apply) Water-Stained Leaves (B9) (excerning the second sec	npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Yeliand Hydrobogy Indicato trimery Indicators (minimum ; Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Agal Mator Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Invidation Viable on Aer Sparsely Vegetato Cont Yelige Observations:	ra: clone required, che clone required, che sei imegery (B7) seve Surface (B6)	Ck sil that apply) Water-Stained Leaves (B9) (excerning the second sec	npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Yeliand Hydrobogy Indicato timery Indicators (minimum) — High Water Table (A2) — Saturation (A3) — Water Marka (B1) — Sediment Deposits (B3) — Agai Mator Crust (B4) — Iron Deposits (B3) — Agai Mator Crust (B6) — Sunface Soil Cracks (B6) — Inundation Visible on Aer — Sparsely Vegetated Contr Teld Observisions: furface Water Present?	ra: 21 one required, che iai imagery (B7) :eve Surface (B6) Yee No	ck all that apply) Water-Stained Leaves (B9) (excell 1, 2, 4A, and 4B) Selt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffde Odor (C1) Oxdizad Rhizospheres along Linit Presence of Reduced Iron (C4) Recent Iron Reduction in Titled S Stunted or Stressed Plants (D1) (Other (Explain in Remarks)	npt MLRA ing Roots (C3) oilis (C8)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (S10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agai Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Invindation Visible on Aar	ra: 21 one required, che iai imagery (B7) :eve Surface (B6) Yee No	K #i Ibal apply) Water-Steined Leaves (B9) (excell 1, 2, 4A, and 4B) Set Crust (B11) Aquetic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stanticd or Stressed Plants (D1) (Other (Explain in Remarks) Depth (inches):	npt MLRA ing Roots (C3) oils (C6) LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48) Orainage Patients (S10) Dry-Sesson Water Table (C2) Saturation Visible on Aerial Imagery (C2 Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocke (D7)
Velland Hydrobogy Indicato tituary Indicators (minimum ; Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Sol Cracks (B4) Involation Viable on Aer Sparsely Vegetated Conn Nel Observations: Unface Water Present? Vater Table Present? Asturation Present?	rs: of one required, che iel Imagery (B7) ave Surface (B8) Yes No Yes No	K all Ibal apply) Water-Steined Leaves (B9) (exce 1, 2, 4A, and 4B) Set Crust (B11) Aquetic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhiftcopheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunied or Stressed Plants (D1) (Other (Explain in Remarks) Depth (inches): Depth (inches): Dapth (inches):	npt MLRA ing Roots (C3) oils (C6) LRR A) Wistland Hys	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Sesson 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) drology Present? Yes No
Velland Hydrobogy Indicato tituary Indicators (minimum ; Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Sol Cracks (B4) Involation Viable on Aer Sparsely Vegetated Conn Nel Observations: Unface Water Present? Vater Table Present? Asturation Present?	rs: of one required, che iel Imagery (B7) ave Surface (B8) Yes No Yes No	K #i Ibal apply) Water-Steined Leaves (B9) (excell 1, 2, 4A, and 4B) Set Crust (B11) Aquetic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stanticd or Stressed Plants (D1) (Other (Explain in Remarks) Depth (inches):	npt MLRA ing Roots (C3) oils (C6) LRR A) Wistland Hys	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Sesson 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) drology Present? Yes No
Yeliand Hydrobogy Indicato timary Indicators (minimum): Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drith Deposits (B3) Ion Deposits (B5) Sufface Soil Cracks (B6) Invindation Viside on Aer Sparsely Vegetated Conc field Observations: Iurface Water Present? Mater Table Present? Mater Table Present? Mater Sole Present Present? Mater Sole Present Pr	rs: of one required, che iel Imagery (B7) ave Surface (B8) Yes No Yes No	K all Ibal apply) Water-Steined Leaves (B9) (exce 1, 2, 4A, and 4B) Set Crust (B11) Aquetic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhiftcopheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunied or Stressed Plants (D1) (Other (Explain in Remarks) Depth (inches): Dapth (inches): Dapth (inches):	npt MLRA ing Roots (C3) oils (C6) LRR A) Wistland Hys	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Sesson 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) drology Present? Yes No
Velland Hydrobogy Indicato tituary Indicators (minimum ; Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Sol Cracks (B4) Involation Viable on Aer Sparsely Vegetated Conn Nel Observations: Unface Water Present? Vater Table Present? Asturation Present?	rs: of one required, ches isi Imagery (B7) ave Surface (B8) Yes No Yes No sem gauge, monitorit	K sil that apply) Weter-Steined Leaves (B0) (exce 1, 2, 4A, and 4B) Saft Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sutifie Odor (C1) Oxidized Rhizospheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Sturited or Stressed Plants (D1) (Other (Explain in Remarks) Depth (Inches): Dapth (Inches): Dapth (Inches): g well, aerial photos, previous inspec	npt MLRA ing Roots (C3) oils (C6) LRR A) Wistland Hys	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Sesson 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) drology Present? Yes No
Yeliand Hydrobogy Indicato timary Indicators (minimum): Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Drith Deposits (B3) Ion Deposits (B5) Sufface Soil Cracks (B6) Invindation Viside on Aer Sparsely Vegetated Conc field Observations: Iurface Water Present? Mater Table Present? Mater Table Present? Mater Sole Present Present? Mater Sole Present Pr	rs: of one required, ches isi Imagery (B7) ave Surface (B8) Yes No Yes No sem gauge, monitorit	K all Ibal apply) Water-Steined Leaves (B9) (exce 1, 2, 4A, and 4B) Set Crust (B11) Aquetic Invertebrates (B13) Hydrogen Suffide Odor (C1) Oxidized Rhiftcopheres along Livi Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Stunied or Stressed Plants (D1) (Other (Explain in Remarks) Depth (inches): Dapth (inches): Dapth (inches):	npt MLRA ing Roots (C3) oils (C6) LRR A) Wistland Hys	Water-Stained Leaves (B9) (MLRA 1, 2, AA, and 48) Drainage Patterns (S10) Dry-Sesson 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) drology Present? Yes No

Western Mountains, Valleys, and Coast - Interim Version

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oject/Site: Harr	sishig	_ City/County: _	Marysville Sampling Dala: 2-28
plicant/Dwner:	•		State: WA Sampling Point:P77
estigator(s):	Sewell	_ Section, Town	nship, Range:
ndiorm (hillslope, terrace, etc.):		_ Local relief (or	oncave. convex, none) Slope (%):
bregion (LRR)	Lat		Long: Detum:
i Map Unit Name:			NWI classification:
		year? Yes	No (If no, explain in Remarks.)
Vegetation Soil			Are "Normal Circumstances" present? Yes No
Vegetation Soit		-	(If needed, explain any answers in Remarks.)
			point locations, transects, important features, etc.
MINACI OF FROMOG -	Muach and map anown	(A saurhand)	point tocations, samecs, important teaches, etc.
ydrophytic Vegetation Present?	Yes No	- is the f	Sempled Area
ydric Soli Present?	Yes No	- 1	a Wetland? Yes No
Atland Hydrology Present?	Yes No		
emerks - above	Normal rains	ill at	the
- Furned	, ditched + p	Inted ,	n rye
GETATION - Use scienti	fic names of niants	***	······································
		te Dominant In	ndicator Dominance Test worksheet:
ree Statum (Plot size:		er Species? .	
Ne anna anna tao tai dang and data pada ang ang bang bang bang bang bang bang			That Are OBL, FACW, or FAC: (A)
		* Total Cover	Percent of Dominant Species
epiing/Shrub Stratum (Plot size:			That Are OBL, FACW, or FAC: (A/B)
			Prevalence index worksheet:
			FAC species X 3 =
erb Stratum (Plot size:		* Total Cover	UPL species x 5 =
			Column Totals: (A) (B)
			Maliferatoria.co
·····	ng i yang diserini yan manimizati sina degi sika deter serini kata ta		

			date in Remarks or on a separate sheet)
			Wetland Non-Vescular Plants1
).			Problematic Hydrophytic Vegetation' (Explain)
۱			Indicators of hydric solit and wetland hydrology must be present, unless disturbed or problematic.
loody Vine Stratum (Plot size:			All down to all
			Hydrophytic Vegetation
****	****	= Total Covar	Present? Yes No
Bare Ground in Herb Stratum		"" - LOIN COAR	
emaria			

Western Mountains, Valleys, and Coast - Interim Version

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Feature Texture Remarks Color (moist) Type linche Color (moist) Tem 104m2/2 Sale lon 2.54 4/4 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coeted Sand Grains Hydric Solf Indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils³: ____ 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) ____ Histic Epipedon (A2) Stripped Matrix (S6) Red Parent Material (TF2) Loamy Mucky Mineral (F1) (except MLRA 1) ____ Other (Explain in Remarks) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Derk Surface (A11) ____ Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and ---wetland hydrology must be present, Sandy Mucky Mineral (S1) Depieted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soll Present? Yes Depth (inches): No Remarks: No editer HYDROLOGY Wetland Hydrology Indicators: Secondary indicators (2 or more required) Primary Indicators (minimum of one required: check all that apply) Water-Stained Leaves (89) (except MLRA Water-Steined Leaves (B9) (NILRA 1, 2. _ Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B) ___ Drainage Patterns (B10) ____ Salt Crust (B11) Saturation (A3) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) ____ Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Algel Met or Crust (84) ____ Presence of Reduced Iron (C4) Shellow Aquitard (D3) ____ FAC-Neutral Test (D5) Iron Deposits (85) Recent Iron Reduction in Tilled Soils (C6) -Surface Soil Cracks (B6) Stunied or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Septh (inches) Water Table Present? Depth (inches); Yes Saturation Present? Yes Depth (inches): Wetland Hydrology Present? Yes (includes capitary fringe) Describe Recorded Data (streem gauge, monitoring well, serial photos, previous inspections), if available: Remarks: No Adutes

US Army Corps of Engineers

psteartiDaner:	oject/Site:	Harry	sistus	City/Co	unty: Ma	msulle	Sampling Date:	2-20
everypetry(i) Zd Section. Township. Range indform (initiations, surrace, etc.) Local resid (concare, corver, nore). Diopo (%): indform (initiations, on the otte typical for this time of year? Yee No (fino, caption in Remarks.) in Map Unit Name. No (fino, caption in Remarks.) No is Vegetation Soil or Hydrology Tignificantly delution? Are "Normal Circumationes" present? Yes No Vegetation Soil or Hydrology Tignificantly delution? No No UIMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. hydrophytic Vegetation Present? No Visit Sold Present? Yes No is the Sampled Area within a Wetland? Yes No Visit Sold Present? Yes No is the Sampled Area worksheet: No No Visit Sold Present? Yes No Satistical Hydrology Present? No No <th>plicant/Dwner:</th> <th></th> <th></th> <th></th> <th></th> <th>State: WA</th> <th></th> <th></th>	plicant/Dwner:					State: WA		
Indian (Nistope, terrace, etc.)	vestigator(s):	Z.J	Sewall	Section	Township, Ra	nge.		
bregion (LRR) Laf Long: Detum: all Map Unit Name: NMI classification: MMI classification: MMI classification: a climate/ hydrologic contines on the site hybical for this time of year? Yes No (If no, applein in Remarks.) No a Vegetation Soil or Hydrology Tignificantly distribut? Ne "Normal Circumstances" present? Yes No a Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. http://withics.oil Present? No ydrophylic Vegetation Present? Yes No is the Sampled Aras No Vetation Diversent? Yes No within a Wetland? No No CBETATION - Use scientific names of plants. Dominant indicator Dominant Species (A) Total ArcBit. FACW, of FAC: (A) Species Across All Strate (Plot size:) - Total Cover Fac species x 2 = FAC species	indiorm (hillstopa,	terrace, etc.):					Siope	(%):
MARe Unit Name: NVM classification: e divasic (hydrologic conditions on the site lysical for this time of year? Yes No (If no, applein in Remark.) v Vegetation Soit or Hydrology Tignillicarity datuber? Are "Normal Circumstances" present? No v Vegetation Soit or Hydrology naturally problematic? (If no-decid, explain any answers in Remarks.) UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. ho								
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UMMARY OF FINDENCS - Attach site map showing sampling point locations, transects, important features, etc. hydrophytic Vegetation Present? Yes No Yes No				-	ic? /N n	nederl explain any ans	wors in Remarks.)	
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typic: Soil Present? Yes No	iydrophytic Vege	lation Present?	Yes No		is the Seconlar	(Åren		
Remarks			Yes No				NO CARE	·
EGETATION - Use scientific names of plants. EGETATION - Use scientific names of plants scientific names of plants. EGETATION - Use scientific names s			Yes No	_				
EGETATION – Use scientific names of plants. Absolute Dominant Indicutor Statum (Plot size:) Absolute Dominant Indicutor % Edward: Statum	Remarks: - d	cheve.				~		
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Absolute Dominant Indicator Number of Dominant Species Intersection 34 Cover Status Status Status Number of Dominant Species Intersection Intersection Intersection Intersection Intersection	EGETATION	_ Line eclenti	lic names of plants					
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Image:	Inee Stratum (Pi	ot size:				1		
Image: Section Arcoso All Stratum (B) Species Acroso All Stratum (B) Percent of Dominant Species (A/B) Prevations index worksheet: (A/B) Total Score of C Multiply by: OBL species x1 z FACW species x2 z FACW species x3 z FACW species x3 z FACW species x3 z FACW species x4 z UPL species x5 z Column Totals: (A) Column Totals: (A) Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptation' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptation' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptation' (Provide supporting data in Remarks or on a separate sheet) Morphological Adaptation' (Provide	•					That Are OBL, FACV	N, or FAC:	(A)
actions/Shub_Stratum (Piot size:	!,					Table Number of Dor	ninant	
Section/Shrub Stratum (Plot size:	l					Species Across All S	trats:	(B)
Saeimu/Shrub Stratum (Piot size:) Prevalence index worksheet:								
Prevalence index worksheet:	Septing/Shrub Str	atum (Plot size:)		8 Cover	1		(A/B)
OBL species x 1 =						Prevalence Index w	orksheet:	
A.	2							
FAC species x 3 =	l							
iardb.Stratum (Plot size:	j							
Column Totals:	ierb Stratum (Pi	of size:		= Tola	l Cover			
Continue for the set of the								
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Image: Stratum Providence Test is >50% Image: Stratum Problematic or on a separate street) Image: Stratum Problematic hydrophytic Vegetation (Explain) Image: Stratum Protein stratum Image: Stratum Protein Cover Image: Stratum Stratum Image: Stratum Stratum Image: Stratum Stratum						1 A A A		
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Moody Vine Stratum Piot size:								
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K Bare Ground in Herb Stratum * Total Cover						Hydrophytic		
% Bare Ground in Herb Stratum	2						Yes No	-
	% Bare Ground in	Herb Stratum		* Total	Covar			[
					7			

SOIL Sempling Point: Profile Description: (Describe to the depth needed to document the Indicator or confirm the absence of Indicators.) Depth Matrix Redox Feature Color (moist) 10 V2 3/2 Texture Remarks Type Loc (inche Color (moist) 1 cm 5 m la 2.5 41 ^{*}Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains. Hydric Soli indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix Indicators for Proble natic Hydric Solia ____ 2 cm Muck (A10) Histosol (A1) ____ Sandy Redox (S5) Histic Epipedon (A2) ___ Stripped Matrix (S8) Red Parent Materiel (TF2) Other (Explain in Remarks) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) -Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Bolow Dark Surface (A11) ____ Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and watland hydrology must be present, Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (If present): Type: Nydric Soil Present? Yes No. Depth (inches): Remarks: no intrates HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary indicators (minimum of one required: check all that apply). Water-Stained Leaves (B9) (except MLRA Water-Steined Leaves (B9) (MLRA 1, 2, Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B) ____ Salt Crust (B11) Drainage Patterns (610) Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) Algal Mat or Crust (84) ____ Presence of Reduced Iron (C4) ____ Shallow Aquiterd (D3) ____ FAC-Neutral Test (D5) Recent Iron Reduction in Tilled Soils (C6) iron Deposits (85) Surface Soil Cracks (86) Stunted or Stressed Plants (D1) (LRR A) ___ Raised Ant Mounds (D6) (LRR A) Frost-Heeve Hummocks (D7) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (88) Field Observations: Surface Water Present? epth (inches); Water Table Present? Depth (inches); Yes Wetland Hydrology Present? Yes Saturation Present? Yes Depth (Inches); No (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks: no indicates

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oject/Sile;	Harson	sisting	City/County:	Mary		Sampling Date: 2-28
oplicant/Dwner:				1	State: WA	Sampling Point:
	<u> </u>	Sewall	Section, Tow	nship, Range:		
indiarm (hillslop	e, terrace, etc.):					Slope (%):
	ne:				NWI classifi	
		n the site typical for this ti	me of year? Yes			
		or Hydrology sign		Ane "Non	mal Circumstances"	present? Yes No
		or Hydrology nati	-	ill neode	d, explain any answe	
		• •• ••••		•		'
UMMART O	+ FINDINGS -	Attach site map sh	lowing sampling	point loca	vons, vansecu	s, important features, etc.
Hydrophytic Veç	etation Present?	Yes No		Sempled An	-	
Hydric Soil Pres	ent?	Yes No		sampiec An s Wetland?		No
Wetland Hydroic		Yes No_	<u> </u>			
Remerks:	above .	Normal ra	in Full a	+ tom		
-	Formed,	ditched +	planted	Ar ra	د	
EGETATION		fic names of plants	£			
EGETATION	- Use scienti		Absolute Dominant l	advantor 1 De	ominance Test wor	Laborat:
(nee Statum (Plot size:		Cover Species?	Alexand I.	umber of Dominant S	
					and Are OBL, FACW,	or FAC: (A)
2.				7	atal Number of Domi	nant
				Si	ecies Across All Str	
ł				P	incent of Dominant S	Decies
Seplino/Shrub S	tratum (Piot size:	, ~	= Total Cove	¥ 17	at Are OBL, FACW.	or FAC: (A/B)
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ierh Stratum (Plot size:	, -	- Total Cove			×4=
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					drophytic Vegetat	ion Indicators:
i					_ Dominance Test is	
)					Prevalence Index	
					_ Morphological Ade data in Remark	eptations' (Provide supporting (s or on a separate sheet)
l,					Wetland Non-Vas	
		·			Problematic Hydro	ophytic Vegetation' (Explain)
1		······································		¹ #	dicators of hydric so	at and wetland hydrology must
*·			= Total Cove	be	present, unless disi	turbed or problematic.
Voody Vine Str	num (Piot size:			•		
					drophytic	
2					estation resent? Ye	No
A Bace Ground	in Herb Stratum	-	= Total Cove	•		
		and ,)				
lemarks:						

SOIL Sampling Point: Profile Description: (Describe to the death needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Color (moist) Texture Remarks (inches Color (moist) % Type' 1am 10412/2 2.54 4/3 to a fine 100 *Type: C=Concentration, D=Depietion, RM=Reduced Matrix, CS=Covered or Coated Sand Greins. Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix Indicators for Proble natic flydric Soils³ ____ 2 cm Muck (A10) ____ Sandy Redox (S5) Histosol (A1) ___ Stripped Matrix (S6) Red Parent Material (TF2) Histic Epipedon (A2) Loamy Mucky Mineral (F1) (except MLRA 1) ___ Other (Explain in Remarks) Black Histic (A3) Hydrogen Sullide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) ____ Depleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and ----wetland hydrology must be present, Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F6) Restrictive Layer (if present): Type: Hydric Soll Present? Yes No ____ Depth (inches): Remarks: No identes HYDROLOGY Wetland Hydrology Indicators: Primary indicators (minimum of one required; check all that apply) Secondary indicators (2 or more required) Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, _ Sunace Water (A1) High Water Table (A2) 4A, and 4B) 1, 2, 4A, and 4B) ___ Drainage Patterns (B10) ____ Salt Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marka (B1) ____ Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) ____ Shallow Aquiterd (D3) Algel Mat or Crust (B4) Presence of Reduced Iron (C4) ___ FAC-Neutral Test (D5) Iron Deposits (85) Recent Iron Reduction in Titled Soils (C6) -____ Raised Ant Mounds (D6) (LRR A) Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Frost-Heave Hummocks (D7) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Depth. (inches) Dubth (inches): Water Table Present? ١. Wetland Hydrology Present? Yes Saturation Present? Yes i.t.o Depth (inches); (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks: No inductors

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oject/Site: Haren	sisting	City/County:	Manysville sampling Date: 2-2
plicant/Dwner:	,		State: WA Sampling Point DP#
restigator(s): 2.	Semel	Section. Town	ship. Range:
ndiorm (hillslope, terrace, etc.);			oncave. convex, none) Stope (%):
			Long: Datum:
I Map Unit Name:			NWI classification:
			No (if no, explain in Remarks.)
Vegetation Soit o			Are "Normal Circumstances" present? Yes No
Vegetation Soit o		•	(If needed, explain any answers in Remarks.)
JMMARY OF FINDINGS - /	Attach site map showl	ng sampling	point locations, transects, important features, etc
ivdrophytic Vegetation Present?	Yes No		· · · · ·
lydric Soil Present?	Yes No		Bampled Arsa
Vetland Hydrology Present?	Yes No		
tomarks - above A	vormal raint	FU at	-+m
- Furmed .	detend + 1		N FA. L.
	<i>ſ</i>		· · · · ·
GETATION - Use scientifi			
ree Stratum (Plot size:	Absolution () % Cov	ute Dominant In rer. Species? 5	New York Control of Co
			Total Number of Dominant
			Percent of Dominant Species
solino/Shrub Stratum (Plot size: _		* Total Cover	That Are OBL, FACW, or FAC: (A/B)
			Prevalence index worksheet:
· · · · · · · · · · · · · · · · · · ·			
			FAC spacies × 3 *
sto Stratum (Plot size:	,	= Total Cover	
SICO OPTIGUITI (FRATRIZE.			UPL species x 5 =
·····			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
			Wetland Non-Vascular Plants
••••••••••••••••••••••••••••••••••••••			Problematic Hydrophytic Vegetation' (Explain)
0			Indicators of hydric soll and wetland hydrology must
		= Totel Cover	be present, unless disturbed or problematic.
loody Vine Stratum (Piot size:			
•			Hydrophytic
·			Present? Yes No
		Total Cover	
Bare Ground in Herb Stratum			1

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Metrix Redox Features Color (moint) % Type Loc' Texture Color (moist) Remarks (inches 10YA-313 10 10-104R312 Fin Fr. se. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains. ²Location: PL=Pore Lining, M=Matrix, indicators for Problematic Hydric Solis¹ Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (\$5) ____ Red Parent Material (TF2) Stripped Matrix (S6) Histic Epipedon (A2) __ Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) ____ Other (Explain in Remarks) Loamy Gleved Matrix (F2) Hydrogen Sulfide (A4) ----Oppleted Matrix (F3) ____ Depisted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depisted Dark Surface (F7) watland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type Hydric Soli Present? Yes No Depth (inches): ___ Bamarke. HYDROLOGY Wetland Hydrology Indicators: Primary indicators (minimum of one required, check all that apply). Secondary indicators (2 or more resuired) Surface Water (A1) Water-Stained Leaves (B9) (MILRA 1, 2, ____ Water-Steined Leaves (B9) (except MLRA 4A, and 48} ____ High Water Table (A2) 1, 2, 4A, and 4B) ____ Saturation (A3) ____ Salt Crust (B11) Drainage Patterns (B10) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) ----____ Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) Presence of Reduced iron (C4) Shallow Aquitard (D3) ____ Algal Mat or Crust (B4) ____ Iron Deposits (85) ____ Recent Iron Reduction in Tilled Soils (C6) ____ FAC-Neutral Test (D5) ____ Raised Ant Mounds (D6) (LRR A) ____ Stunted or Stressed Plants (D1) (LRR A) ____ Surface Soil Cracks (B6) Other (Explain in Remarks) ____ Froat-Heave Hummocks (D7) Inundation Visible on Aerial Imagery (S7) -----Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Danth (inches) Depth (inches): Water Table Present? Yes No Yes ____ No ___ Depth (inches); _____ Seturation Present? Wetland Hydrology Present? Yes No / (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks: sahrahan to day

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18

Western Mountains, Valleys, and Coast - Interim Version

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roject/site: Harry	sisting	CitulCountr	Langsville Sampling Dates 2-28.
plicant/Dwner:		Caproducty.	State: WA Sampling Point: DP#
vestigator(s):	Sewell	Senting Tourship	Renat
*		i ocel relief /onno	ive. convex, none); Slope (%);
ibregion (LRR)			
• • • •			
al Map Unit Name:			NWI classification:
· · ·			No (If no, explain in Remarks.)
s Vegetation Soit			Are "Normal Circumstances" present? Yes No
Vegetation Soit	or Hydrology naturally	y problematic?	(If needed, explain any answers in Remarks.)
UMMARY OF FINDINGS -	Attach site map show	ing sampling poi	nt locations, transects, important features, etc.
iydrophytic Vegetation Present?	Yes No	/	
tydric Soil Present?	Yes		pied Area
Vetland Hydrology Present?	Yes No	within s W	etiand? Yes No
Remarks - a boald	Normal rain	E	k
	detaled +		
		provide: A	- <u>y</u>
EGETATION - Use scienti			
nen Diestum (Diet einen		lute Dominant Indica	
ree Statum (Plot size:		ver Species? Stat	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
· · · · · · · · · · · · · · · · · · ·			
*			Total Number of Dominant Species Across All Strats: (B)

· · · · · · · · · · · · · · · · · · ·		a Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/8)
aplino/Shrub Stratum (Plot size:			n ngegen gegengen of 5 en speciel of Herzengangen werden in Herzengengen en speciel state and (21) and herzene and and definition of a biological
·			
			Total % Cover of Multiply by:
· · · · · · · · · · · · · · · · · · ·			
•			FAC species x3 =
·		- Total Cover	FACU species x 4 =
erb Stratum (Plot size:		- 10102 047401	UPL species x 5 =
• 			Column Totals: (A) (B)
• ••••••••••••••••••••••••••••••••••••			
•			
			Hydrophytic Vegelation Indicators:
			Dominance Test is >50% Prevalance Index is ≤3.0 ¹
·			Morphological Adaptations' (Provide supporting
·			data in Remarks or on a separate sheet)
·			Wetland Non-Vascular Plants'
0.			Problematic Hydrophytic Vegetation' (Explain)
1			Indicators of hydric soll and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cover	us present, uness disturbed of problematic.
foody Vine Stratum (Piot size:			
• <u></u>			Hydrophytic Vegetation
) ¹⁴ 14 (14 - 17 - 17 (14 (14 (14 (14 (14 (14 (14 (14 (14 (14			Present? Yes No
6 Bare Ground in Herb Stratum		Total Cover	
	······		1
emaria:	bare gra	1	

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SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Feature Color (moist) Loc Texture (inche B Type Remarks Color (moist) 1041312 10412 312 1 com sitten rode Fronk ¹Type: C=Concentration, D=Depletion, RM=Reduced Metrix, CS=Covered or Costed Sand Grains. Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix ndicators for Problematic Hydric Soils³ ____ Sandy Redox (S5) Histosol (A1) ____ 2 cm Muck (A10) Histic Epipedon (A2) ____ Stripped Matrix (S6) Red Parent Material (TF2) ___ Other (Explain in Remarks) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) -Hydrogen Sullide (A4) Loamy Glayed Matrix (F2) Depisted Below Dark Surface (A11) Depicted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) ⁴Indicators of hydrophytic vegetation and Depleted Dark Surface (F7) wetland hydrology must be present. Sandy Mucky Mineral (S1) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Hydric Soll Present? Yes Depth (inches): No 🔜 Remarks: No induction HYDROLOGY Welland Hydrology Indicators: Secondary Indicators (2 or more required) Primary indicators (minimum of one required: check all that apply). Water-Stained Leaves (89) (except MLRA ____ Water-Stained Leaves (B9) (NILFA 1, 2, Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B) ____ Selt Crust (811) ____ Drainage Patterns (B10) ____ Saturation (A3) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) ___ Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) ____ Hydrogen Sutfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Algal Mat or Crust (84) ____ Presence of Reduced iron (C4) ____ Shallow Aquiterd (D3) ___ FAC-Neutral Test (D5) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (85) ____ Raised Ant Mounds (D6) (LRR A) Surface Soil Cracks (B6) Stunied or Stressed Plants (D1) (LRR A) ___ Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (88) Field Observations: Surface Water Present? Depth (inches); -----Water Table Present? Depth (inches): Yes Depth (inches): 7/7 Saturation Present? Yes / No Wetland Hydrology Present? Yes (includes capitary tringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks: sahatur to deep

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oject/Sile:	tarson .	sishing	City/County: _	Mary	sulle	Sampling Data: 2-2	8
pplicant/Owner:				1		Sampling Point: DP#	£ 6
vestigator(s)	21	Sewell	Section, Town	ship, Range:			
indform (hillslope, t	errace, etc.):					Siope (%):	-
ubregion (LRR)		La	r	Loi	ng:	Datum:	
oil Map Unit Name:					NWI classifi	cation:	
re climatic / hydrolo	gic conditions of	n the site typical for this time	of year? Yes				
		or HydrologySignific		Are "Nort	nel Circumstances"	present? Yes No	
		or Hydrology natura	-		i, explain any answ		
						,	
	- 60MIUM	Adach she map sho	aug samping	point loca	uons, uanseco	s, important features, etc	».
Hydrophytic Vegeta		Yes No	- is the	Sempled Are		and the second second	
Hydric Soil Present		Yes No	within	s Wetland?		No	
Wetland Hydrology		Yes No					_
		Normal rais		1-ton			
- +	mmed ,	ditched +	planted ,	a ra	L		
EGETATION -	Use scienti	ic names of plants.	A	<i>4</i>			لب
		Abs	olute Dominant In	dicator Do	minance Test wor	ksheet:	٦
ires Statum (Plot			over Species?	140	mber of Dominant 8	ipecies	
• •••••••••••••••••••••••••••••••••••••					at Are OBL, FACW,	or FAC: (A)	
					tal Number of Domi	nent	
• ••••••	*****			\$p	ecies Across All Str	eta: (B)	
1		and and an all and a state of the	a Total Cove		rcent of Dominant S		
Seplina/Shrub Strat	um (Piot size:		- 100010000	מו	at Are OBL, FACW.	or FAC: (A/B)	1
I				Pr	evalence index wo		1
						Multiply by:	
						×1=	
		~~~~~				x2=	
i			= Total Cove			x3=	
terb Stratum (Plot	size:			1		x5=	
						(A) (B)	
·							
l					Prevalence Inde		
					drophytic Vegetati		
					Dominance Test is Prevalence Index		
						is sau ^o aptations ¹ (Provide supporting	
					date in Remark	is or on a separate sheet)	ł
					Wetland Non-Vasi	cular Plants ¹	
					· ·	phytic Vegetation' (Explain)	
1				110	dicators of hydric so	It and wetland hydrology must urbed or problematic.	
			= Totel Cover		properti, uniters& CRM	anoeu ur problemeuc.	4
Voody Vine Stratun		)					
*					drophytic getation		1
L				Pri		No	
& Bare Ground in H	erb Stratum		* Total Cover				
temarks:	Married Street, Street	bore ground	, 1/	7			-
		han I	- In H	£1			1

Western Mountains, Valleys, and Coast - Interim Version

SON Sempling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Color (moist) % Type Loc' Depth Matrix Texture Remarks (inche Color (moist) 104-3/2.5 Con 1071314 Endy / en 11. Fer Far ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Grains. Hydric Soli Indicators: (AppRcable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Solis¹ ____ Sandy Redox (S5) Histosol (A1) ____ 2 cm Muck (A10) ____ Histic Epipedon (A2) ____ Stripped Matrix (S8) Red Parent Material (TF2) ___ Other (Explain in Remarks) Black His6c (A3) Loamy Mucky Mineral (F1) (except MLRA 1) _ -Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) ___ Depieted Below Derk Surface (A11) Depleted Matrix (F3) . Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and -Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) watiand hydrology must be present. Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No Remarks: HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary indicators (minimum of one required: check all that apply). ____ Water-Stained Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, ____ Surface Water (A1) 1, 2, 4A, and 4B} 4A, and 48} ____ Salt Crust (B11) __ Drainage Patterns (B10) Saturation (A3) Water Marks (B1) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Hydrogen Sulfide Odor (C1) Sediment Deposits (82) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) ____ Algel Met or Crust (84) Presence of Reduced Iron (C4) ____ Shallow Aquitard (D3) FAC-Neutral Test (D5) ___ Iron Deposits (85) ___ Recent Iron Reduction in Tilled Solie (C6) ___ Surface Soil Cracks (B6) Stunied or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) -----..... Inundation Visible on Aerial Imagery (87) ____ Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B6) Field Observations: Surface Water Present? Depth (inches): Water Table Present? Yes _____ No ____ Depth (inches): Yes ____ No ____ Depth (inches); _____ Saturation Present? Wetland Hydrology Present? Yes (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks 5 to less

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oject/sile: Haren	sisting	City/County:	Mary	SUIL	Sampling Date:	58.
pplicant/Owner:				State: WA	Sampling Point:	P#
vestigator(s): ZA	Sewall	Section, Town	ship, Range:			
andform (hillstope, terrace, etc.):		Local relief (co	ncave. convi	ox. none).	Slope (%):	
ubragion (LRR)	Let				Datum:	
oli Map Unit Name:				NWI classific	ation:	
re climatic / hydrologic conditions of		VRS/7 Yes				
re Vegetation Soit	•.			ai Circumstances" (		
Vegetation Soil		-		i, explain any answe		
	, , , , , , , , , , , , , , , , , , , ,		,			
UMMARY OF FINDINGS -	Attach site map show	ng sampling p	point local	ions, transects	i, important features	, etc.
Hydrophytic Vegetation Present?	Yes No	1	empled Area	-		1
Hydric Soil Present?	Yes No		empled Arei s Wetland?		No	
Wetland Hydrology Present?	Yes No			144		]
Remarks: - above	Normal raint	Fel at	-tim			
- Formed,	detail + p	lanted ,	~ ~ ~ ·	L		
EGETATION - Use scient	Ec names of night-					ليمسين
IAIIUN - USE SCIENT	•	te Dominant In	denator Da	minarice Test worl	aboot	7
Tree Stratum (Plot size:		er. Species? S		mber of Dominant S		
·			The The	Are OBL, FACW,	or FAC:	(A)
, <u> </u>				al Number of Domir	ant	
l			Sp	ecies Across All Stro	nta:	(8)
4.			Per	cent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size:	)	» Tolai Cover	Th	at Are OBL, FACW.	or FAC:	(A/B)
1.			Pre	valence index wor	ksheet:	
2				Total % Cover of:	Multiply by:	.
3				L species	x1=	.
l						
i					×3=	.
terb Stratum (Plot size:		* Total Cover			× 4 =	•
I	n de constante de la constante				x 5 = (A)	
) 						. (6)
				Prevalence Index	= B/A =	.
),				drophytic Yegelati		
h				Dominance Test is		
5.				Prevalence Index i		
				data in Remark	ptations' (Provide supporti s or on a separate sheet)	ng
3.				Wetland Non-Ves	ular Plants'	
				•	phytic Vegetation' (Explain	
	,		1tra	licators of hydric so	it and wetland hydrology m	ust
		= Total Cover	De	present, usitess disc	urbed or problematic.	
Noody Vine Stratum (Ptot size:						
l				drophytic petation		
2					8 No	
% Bare Ground in Herb Stratum		Total Covar				
Anna dea	are grand		1/ 1/			

Western Mountains, Valleys, and Coast - Interim Version

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Color (moist) Type' Loc' Color (moint) Texture Remark (inche 10u 104H313 Suly Im 104n3/6 Comm ¹Type: C=Concentration, D=Depletion, RM=Reduced Mstrix, CS=Covered or Costad Sand Grains. Hydric Soli Indicators: (Applicable to all LRRa, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix, indicators for Problematic Hydric Solis³ ____ Sandy Redox (S5) Histosol (A1) ____ 2 cm Muck (A10) ____ Histic Epipedon (A2) ____ Stripped Matrix (S6) ___ Other (Explain in Remarks) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depisted Below Dark Surface (A11) ___ Depleted Matrix (F3) Redox Dark Surface (F6) Indicators of hydrophylic vegetation and Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Hydric Soll Present? Yes No. Depth (inches): Remarks: up phickers HYDROLOGY Welland Hydrology Indicators: Secondary Indicators (2 or more required) Primary indicators (minimum of one required: check all that apply). ____ Water-Stained Leaves (89) (except MLRA Water-Stained Leaves (B9) (MLRA 1, 2, _ Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 48} Salt Crust (B11) ____ Drainage Patients (B10) ____ Saturation (A3) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) ____ Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) ____ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) Iron Deposits (85) Recent fron Reduction in Titled Soils (C6) _ ____ Raised Ant Mounds (D6) (LRR A) Surface Soil Cracks (B6) Stunied or Stressed Plants (D1) (LRR A) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Depth (inches); Surface Water Present? Depth (inches): Water Table Present? No Yes Saturation Present? Yes No Depth (inches); Watland Hydrology Present? Yes (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: No infrato

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Dject/Sile: Harr	sishing	_ City/County:	na	ysone	Sampling Date:	20.
plicant/Dwner:				State: WA	Sampling Point:	P#11
estigator(s): Z.A	Semall	Section, Toy	vnship, Range			
ndform (hillslope, terrace, etc.):					Siope (%):	
bregion (LRR)	Let			.ong:	Detum:	
il Map Unit Name:				NWI classifi	cation:	
I climatic / hydrologic conditions on	the site typical for this time of	year? Yes	No	(If no, explain in F	(emarks.)	
Vegetation Soit	Hydrology Significan	Ily disturbed?	Are "No	mal Circumstances"	present? Yes No	
Vegetation Soit o	r Hydrology naturally (	problematic?		ed, explain any answe		
MMARY OF FINDINGS -			n maint inc	atione imponde	- Imagenné Institut	n afe
	AUGCII SHO JIMU SHOWN	A seminary	t bour roc		, unper care reaction	
ydrophytic Vegetation Present?	Yes No	- is the	Sampled A			
ydric Soll Present?	Yes No	1	n s Wetland		No	
Vetland Hydrology Present?	Yes No	=				
man - clocy , A	vormal raisf		++m	-		1
- Furned,	artched + p	Inted	~ ry	e		ł
GETATION - Use scientifi	c names of plants.		·····.		······································	
	Absolu	te Dominant	Indicator 1	Dominance Test worl	ksheet:	7
ree Stratum (Plot size:		er Species?		Number of Dominant 5		
·				That Are OBL, FACW,	or FAC:	(A)
·				Total Number of Domi		
			] *	Species Across All Str	ata:	(B)
		= Total Cov		ercent of Dominant S	pecies	
eoling/Shrub Stratum (Plot size:		~ 1000 001	"""	That Are OBL, FACW.	or FAC:	(ANB)
·				revalence Index wo		
					Multiply by:	
· · · · · · · · · · · · · · · · · · ·					×1=	
					×3∝	
		= Total Cov			x4=	
erb Stratum (Plot size:	)				x5=	- 1
					(A)	
·						
·				Prevalence Inde		=
				Hydrophytic Vegetati Dominance Test is		1
			1	Prevalènce Index		
·					plations' (Provide suppor	tina
· · · · · · · · · · · · · · · · · · ·				data in Remark	is or on a separate sheet)	
· · · · · · · · · · · · · · · · · · ·				Wetland Non-Ves		
D.					phytic Vegetation' (Explain	· •
1.				Indicators of hydric so to present, unless dist	il and wetland hydrology s wrbed or problematic.	nust
		Total Cov				
loody Vine Stratum (Piot size:			1.	*		
				iydrophytic /egetation		
••••••••••••••••••••••••••••••••••••••		= Total Cov	1		No	
Bare Ground in Herb Stratum			•••			

HYDROLOGY Wetland Hydrology Indicators: Primary indicators (minimum of one required; check at that apply). ___ Surface Water (A1) ____ High Water Table (A2) 1, 2, 4A, and 4B) ____ Salt Crust (B11) ____ Saturation (A3) Aquatic Invertebrates (B13) Water Marks (61) -----____ Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) ____ Presence of Reduced Iron (C4) ..... Iron Deposits (85) Surface Soil Cracks (B6) _____ _ Inundation Visible on Aerial Imagery (87) ...... Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Dapth (inches): No / Water Table Present? Depth (inches): Yes Depth (inches); Saturation Present? Yes No Remarks:

Fur 2.55 A. 7 3 pt per lan ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Costed Sand Greins. Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix indicators for Proble matic Hydric Solls": ____ Sandy Redox (S5) Histosol (A1) ____ 2 cm Muck (A10) Histic Epipedon (A2) ____ Stripped Matrix (S8) ____ Red Parent Material (TF2) ___ Other (Explain in Remarks) ____ Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Redox Dark Surface (F8) -----³Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soll Present? Yes No Depth (inches): Remarks: Secondary Indicators (2 or more required) Water-Steined Leaves (B9) (except MLRA Water-Stained Leaves (B9) (NR,RA 1, 2, 4A, and 4B) ..... Drainage Patients (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) ____ Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) ____ Shallow Aquiterd (D3) ____ Recent Iron Reduction in Titled Solis (C6) ____ FAC-Neutral Test (D5) ____ Raised Ant Mounds (D8) (LRR A) Stunted or Stressed Plants (D1) (LRR A) ____ Frost-Heave Hummocks (D7) Watiend Hydrology Present? Yes (includes capitary fringe) Describe Recorded Data (streem gauge, monitoring well, serial photos, previous inspections), if available: No introdus

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Redax Features Color (maist) % Type

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Sampling Point:

Remarks

Texture

in

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Depth Color (moist) (inches 104h 313 Ø

Matrix

SOIL

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oject/site: Harr	sishis	CibulCounter	- M~	usuille	Sampling Data 2-	29
plicant/Dwner:		, City/Colamy; _			Sampling Point: DP	
	Sewall	Serling Tour	nehin Dan		Cariganaly Police.	
dform (hillslope, terrace, etc.):		-			Since (%)	
	Let					
i Map Unit Name:				NWI classific		
e climatic / hydrologic conditions or	-				The second se	
Vegetation Soil			NO	Normal Circumstances" p		,
Vegetation Soit			Alt I	sded, explain any answe	Alexandri (Calendri )	·
			•			
JMMARY OF FINDINGS -	Attach site map showin	g sampling	point ic	cations, transects	, important feature	s, etc.
lydrophytic Vegetation Present?	Yes No		Sempled	*		
ydric Soll Present?	Yes No Yes No		sampieu a Wetlan		No	
fetland Hydrology Present?	Yes No	- 1				
emerics - abave 1	vormal rainf	all a	+ + -	~		
- Formed,	ditched + p.	Inted .	A- 7-	<b></b>		
GETATION - Use scientif				7		
GETATION - Use scienti		e Dominant Ir	odicator	Dominance Test work	shaat.	
ree Stratum (Plot size:		1. Species?		Number of Dominant S		
				That Are OBL, FACW,	or FAC:	(A)
				Total Number of Domin	ent	
				Species Across All Stro	ta:	<b>(B</b> )
				Percent of Dominant S	pecies	
spling/Shrub Stratum (Plot size:	)	* Total Cove	er	That Are OBL, FACW.	or FAC:	(A/B)
				Prevalence index wor	ksheet:	
					Multiply by:	
					**************************************	
					x2=	
		= Total Cove			× 3 =	-
arb Stratum (Plot size:	)	= Total Cove	9 <b>r</b>		x5*	-
					(A)	-
				Prevalence Index		
				Hydrophytic Vegelatio		
				Dominance Test is Prevelence Index is		
					plations' (Provide support	ine
				data in Remarks	s or on a separate sheet)	
				Watland Non-Vesc		
).					phytic Vegetation' (Expisi	·
				¹ Indicators of hydric sol be present, unless dista	i and wetland hydrology n inbed or problematic.	wst
		_ + Total Cover	r			
oody Vine Stratum (Plot size:	)			Mar. 4.		
			[	Hydrophytic Vegetation		
		Total Cover			No	
Bare Ground in Herb Stratum		- I CUBU COVER	•			
marks:	bar e grano			1		

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Profile Description: (Describe to the de	but veeded to docriment the indicator of could will	
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type' Loc'	Texture Remarks
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and and the second s		100
16 2.54 513	fin the M	Long gal
		yan den dahar kali dan balapat 🔹 kalen ender til stillag, som de genergen genergen den genere i den generation og som de som
Trans O-Constantion DeConstation Ob	Reduced Matrix, CS=Covered or Costed Sand Gr	ains. ² Location: PL=Pore Lining, M=Matrix.
type: C=Concentration, D=Depletion, Kin typric Soft indicators: (Applicable to al		Indicators for Problematic Hydric Soils ¹ :
•		-
	Sandy Redox (85)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S8)	
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Other (Explain in Remarks)
Hydrogen Sullide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	•
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
lestrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes No
		,
YDROLOGY		,
YDROLOGY Netland Hydrology Indicatora:	ed. check all that acciv)	, Secondary indicators (2 or more required)
YDROLOGY Netland Hydrology Indicatora: Phylary Indicatora (minimum of one require		, Secondary inside/ore (2 or more required)
YDROLOGY Welland Hydrology Indicatora: Playery Indicatora (minimum of one require Surface Water (A1)	Water-Stained Leaves (B9) (except MLI	RA Water-Stained Leaves (B9) (NIL,RA 1, 2
YDROLOGY Weisend Hydrology Indicetors: Prinjery Indicetors (minimum of one require Surface Water (A1) High Water Table (A2)		RA Water-Steined Leaves (B9) (MLRA 1, 2 4A, and 48)
YDROLOGY Netland Hydrology Indicatora: Crigary Lakastora (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) Salt Crust (B11)	RAWater-Stained Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Patterns (B10)
YDROLOGY Nelsand Hydrology Indicetors: Playery Indicetors (Indicators) Surface Water (A1) High Water Table (A2)		RA Water-Steined Leaves (89) (MLRA 1, 2 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2)
YDROLOGY Netland Hydrology Indicatora: Crigary indicatora (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	Water-Stained Leaves (B9) (except MLF 1, 2, 4A, and 4B) Salt Crust (B11)	RA Water-Steined Leaves (89) (MLRA 1, 2 4A, and 48) Drainage Patterns (810) Dry-Seeson Water Table (C2)
YDROLOGY Netland Hydrology Indicatora: Crigary Indicatora (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1)		RAWater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Welland Hydrology Indicatora: Physry Indicatora: (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Weber Marks (B1) Sediment Deposits (B2)	Water-Stained Leaves (B9) (except NLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sutfide Odor (C1)	RAWater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Helsand Hydrology Indicators: 2rdgery Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3)	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Set Crust (B11)     Aquatic invertebrates (B13)     Hydrogen Sutide Odor (C1)     Oxidized Rhizospheres along Living Roc	RA Water-Steined Leaves (B9) (MLRA 1, 2 4A, and 4B) Drainage Partients (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (Cl Staturation Visible on Aerial Imagery (Cl Staturation Visible on Aerial Imagery (Cl Shallow Aquitard (D3)
YDROLOGY Welland Hydrology Indicatora: Project Indicatora: Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5)	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aguatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roo     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solis (C6)	A. and 48     Drainage Patterns (B9) (MLRA 1, 2     A. and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (CI     Saturation Visible on Ae
YDROLOGY Netland Hydrology Indicatora: Primery indicatora: (Indimuno d one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Mat or Chast (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Sait Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixcospheres along Living Roc     Presence of Reduccion in Tilled Soils (C6     Stunied or Stressed Plants (D1) (LRR A	AA Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netitiand Hydrology Indicators: Prigray indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Cruet (B4) Iron Deposits (B5) Surface Soil Crecks (B6) Invindation Visible on Aerial Imagery (I	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Saft Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sutide Odor (C1)     Oxidized Rhizospheres along Living Roo     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soile (C6     Stunied or Stressod Piants (D1) (LRR A 87)     Other (Explain in Remarks)	A. and 48     Drainage Patterns (B9) (MLRA 1, 2     A. and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (CI     Saturation Visible on Ae
YDROLOGY Welland Hydrology Indicatora: ?rlgary: Indicatora: ?rlgary: Indicatora (Interiment of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Saft Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sutide Odor (C1)     Oxidized Rhizospheres along Living Roo     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soile (C6     Stunied or Stressod Piants (D1) (LRR A 87)     Other (Explain in Remarks)	AA Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netland Hydrology Indicatora: 20jaary Indicatora: Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Infundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Teld Observations:	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solie (C6     Stunied or Stressed Piants (D1) (LRR A B7)     Other (Explain in Remarks) (B8)	AA Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netland Hydrology Indicatora: 20jaary Indicatora: Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Infundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Teld Observations:	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Solie (C6     Stunied or Stressed Piants (D1) (LRR A B7)     Other (Explain in Remarks) (B8)	AA Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Netiand Hydrology Indicators: 21gyery Indicators, Indicators: 21gyery Indicators, Indicators: 21gyery Marka (B1) Sutrace Marka (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Cinust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Irondation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Sparsely Vegetated Concave Surface Surface Water Present? Yee	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixicospheres along Living Roc     Presence of Reduction in Tilled Solia (C6     Stunied or Stressed Piants (D1) (LRR A     Stunied or Stressed Piants (D1) (LRR A     Other (Explain in Remarks)     (B8)     Depth (inches):	AA Water-Stained Leaves (B9) (MLRA 1, 2     4A, and 48)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl ots (C3) Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
YDROLOGY Helsend Hydrology Indicators: Prinjery Indicators (Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Mater Table Present? Yes	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatics Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres siong Living Roo     Presence of Reduced Iron (C4)     Resent Iron Reduction in Tilled Solis (C6     Stunied or Stressed Plants (D1) (LRR A 87)     Other (Explain in Remarks) (B8)     Dapth (inches): No     Dapth (inches):	RAWater-Stained Leaves (B9) (MLRA 1, 2 44, and 48) Drainage Parterns (B10) Dry-Seeson Water Table (C2) Statustion Visible on Aerial Imagery (C 055 (C3)Geomorphic Position (D2) Shallow Aquitard (C3) 3)FAC-Neutral Test (D5) 3)Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
YDROLOGY Netland Hydrology Indicators: 2rigery Indicators (Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Sparsely Vegetated Concave Surface Sparsely Vegetated Concave Surface Surface Water Present? Yes Mater Table Present? Yes Saturation Present?	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roc     Presence of Reduction in Tilled Solia (C6     Stunied or Stressed Plants (D1) (LRR A 87)     Other (Explain in Remarks) (B8)     No     Depth (inches):     No     Depth (inches):     Wetk	AA, and 483     AA, and 483     Drainage Patterrs (B9) (MLRA 1, 2     AA, and 483     Drainage Patterrs (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl     Satur
YDROLOGY Netland Hydrology Indicators: 2rigery Indicators (Indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Sparsely Vegetated Concave Surface Sparsely Vegetated Concave Surface Surface Water Present? Yes Mater Table Present? Yes Saturation Present?	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatics Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres siong Living Roo     Presence of Reduced Iron (C4)     Resent Iron Reduction in Tilled Solis (C6     Stunied or Stressed Plants (D1) (LRR A 87)     Other (Explain in Remarks) (B8)     Dapth (inches): No     Dapth (inches):	AA, and 483     AA, and 483     Drainage Patterrs (B9) (MLRA 1, 2     AA, and 483     Drainage Patterrs (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl     Satur
YDROLOGY Welsand Hydrology Indicators: ??disarvi indicators: Suface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Suface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concere Surface Field Observations: Suface Water Present? Yes Suface Rater Present? Yes Suface Rater Present? Yes Suface Soil Grack? Yes Suface Soilers Yinge) Security Present? Yes Suface Soilers Yinge)	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roc     Presence of Reduction in Tilled Solia (C6     Stunied or Stressed Plants (D1) (LRR A 87)     Other (Explain in Remarks) (B8)     No     Depth (inches):     No     Depth (inches):     Wetk	AA, and 483     AA, and 483     Drainage Patterrs (B9) (MLRA 1, 2     AA, and 483     Drainage Patterrs (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (Cl     Satur
High Water Table (A2) Saturation (A3) Water Marka (B1) Certain Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concave Surface Field Observations: Surface Water Present? Yes Mater Table Present? Yes Saturation Present? Yes	Water-Stained Leaves (B9) (except MLF     1, 2, 44, and 48)     Sati Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Suffide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Sturied or Stressed Piants (D1) (LRR A     Stride or Stressed Piants (D1) (LRR A     Stride (C6))     Depth (inches):     No     Depth (inches):     Wetli tonitoling well, aerial photos, previous inspections).	RAWater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Welsand Hydrology Indicators: ??disarvi indicators: Suface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Suface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concere Surface Field Observations: Suface Water Present? Yes Suface Rater Present? Yes Suface Rater Present? Yes Suface Soil Grack? Yes Suface Soilers Yinge) Security Present? Yes Suface Soilers Yinge)	Water-Stained Leaves (B9) (except MLF     1, 2, 44, and 48)     Sati Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Suffide Odor (C1)     Oxidized Rhizospheres along Living Roc     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (C6     Sturied or Stressed Piants (D1) (LRR A     Stride or Stressed Piants (D1) (LRR A     Stride (C6))     Depth (inches):     No     Depth (inches):     Wetli tonitoling well, aerial photos, previous inspections).	RAWater-Stained Leaves (B9) (MLRA 1, 2
YDROLOGY Welsand Hydrology Indicators: ??disarvi indicators: Suface Water (A1) High Water Table (A2) Saturation (A3) Weter Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Suface Soil Cracks (B6) Inundation Visible on Aerial Imagery (I Sparsely Vegetated Concere Surface Field Observations: Suface Water Present? Yes Suface Rater Present? Yes Suface Rater Present? Yes Suface Soil Grack? Yes Suface Soilers Yinge) Security Present? Yes Suface Soilers Yinge)	Water-Stained Leaves (B9) (except MLF     1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rixtospheres along Living Roc     Presence of Reduction in Tilled Solia (C6     Stunied or Stressed Plants (D1) (LRR A 87)     Other (Explain in Remarks) (B8)     No     Depth (inches):     No     Depth (inches):     Wetk	RAWater-Stained Leaves (B9) (MLRA 1, 1 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C Stallow Aquitard (D2) Shallow Aquitard (D3) Shallow Aquitard (D3) 

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Western Mountains, Valleys, and Coast -- Interim Version

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iocusito: Haren	sisting	City/County-	Marysville Sampling Data: 2-28
bicant/Owner:			State: WA Sampling Point: DP-1
estigator(s):	Semall	Section Towns	hip. Ranne:
			ncave. convex, none): Slope (%):
oregion (LRR)	Lar_		Datum:
			NWI classification:
climatic / hydrologic conditions	on the site typical for this time of	year? Yes	No (If no, explain in Remarks.)
Vegetation Soit	. or Hydrology Significan	ally disturbed?	Are "Normal Circumstances" present? Yes No
Vegetation Soit	_, or Hydrology naturally	problematic?	(If needed, explain any answers in Remarks.)
MMARY OF FINDINGS	- Attach site map show!	ng sampling p	oint locations, transects, important features, etc.
ydrophytic Vegetation Present?	YesNo	7	an a
ydric Soil Present?	Yes No	1.000	empied Area
etland Hydrology Present?	Yes No 🖊	within a	Wetland? Yes No
omierka: - abeve	Normal raint	Ful at	the
- Furmed	detand + a		
	<u>,                                     </u>		
GETATION - Use scien			
ee Statum (Plot size:	Absolu	te Dominant Ind	
			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strats: (B)
			Percent of Dominant Species
aoling/Shrub Stratum (Plot size	e:)	Total Cover	That Are OBL, FACW, or FAC: (A/B)
			Prevalence index worksheet:
	*****		
			FACW species X 2 = FAC species X 3 =
		= Total Cover	FACU species x 4 =
erb Stratum (Plot size:	)		UPL species x5 =
			Column Totals: (A) (B)
			Morphological Adaptations' (Provide supporting
			data in Remarks or on a separate sheet)
			Wetland Non-Vescular Plants' Problematic Hydrophytic Vegetation' (Explain)
			¹ Indicators of hydric solil and wetland hydrology must
			be present, unless disturbed or problematic.
pody Vine Stratum (Piot size:		Totel Cover	
			Hydrophytic
	······		Vegetation Present? Yes No
One One dis 19-4 Control		Total Cover	riesent? Tes
Bare Ground in Herb Stratum			
marks	bare grow		ł

Western Mountains, Valleys, and Coast - Interim Version

Depth Matrix Redox Features Color (moist) Color (moist) % Type' Loc' Texture Remarks (inch 10m3/2 'an 2.54 5/2 Tran saly lan 1-2 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) ²Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Soils³: ____ 2 cm Muck (A10) Histosol (A1) Sandy Redox (S5) Red Parent Material (TF2) ____ Stripped Matrix (S8) Histic Epipedon (A2) ____ Loamy Mucky Mineral (F1) (except MLRA 1) ____ Other (Explain in Remarks) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) ____ Depleted Mattix (F3) Depleted Below Dark Surface (A11) Indicators of hydrophytic vegetation and Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) watland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soll Present? Yes No Depth (inches): Remarks: HYDROLOGY Wetland Hydrology Indicators: Primery indicators (minimum of one required, check all that apply) Secondary Indicators (2 or more required) ____ Water-Steined Leaves (B9) (except MLRA Water-Steined Leaves (B9) (MILRA 1, 2, _ Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B} ___ Drainage Patterns (B10) ____ Saturation (A3) ____ Salt Crust (B11) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Water Marks (B1) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Deposits (B3) Algei Mat or Crust (84) Presence of Reduced Iron (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) ____ Recent Iron Reduction in Tilled Soils (C6) iron Deposits (85) ____ Stunted or Stressed Plants (D1) (LRR A) ____ Raised Ant Mounds (D6) (LRR A) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Japih (inches) Water Table Present? Depth (inches): Yes No ____Depth (inches): Saturation Present? Yes No Watiand Hydrology Present? Yes (includes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available Remarks: No relicio

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

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SOIL

Western Mountains, Valleys, and Coast -- Interim Version

Sempling Point:

Project/Sile;	Harry	sishig	<u>'</u>	City/County: _	1.	12011-0	Sampling Date:	2
Applicant/Owner:						State: WP	Sampling Point:	VYI
Investigator(s):	2.0	Semel	L	Section, Town	uship, Range	E		
Landform (hillstop	a, terrace, etc.):			Local relief (c	ioncave, cor	wex, none):	Siop	e (%):
							Detun	
Soli Map Unit Nan	Na:					NWi clas	sification:	
		n the site typical for ti			No	fill no. exclain i	in Remarks.)	
		or Hydrology			Are 'No	rmal Circumstance	na" present? Yes 🗹	No
Ane Vegetation	, Soit	or Hydrology	naturally pro	blematic?	(If need		swers in Remarks.)	
							cts, important fea	
SOMMORT	r rindinida -	Adach sae mag	snowing	Bunbung	point ioc	anous' nanaa	cos, important res	
Hydrophytic Veg	etation Present?	Yes	NO	is the	Sempled Ar			
Hydric Soil Press		Yes	No	within	a Wetland		No -	
Wetland Hydrolo		Yes	No					
Remarks:	above	Normal r	a mate	IL a	++m			
-	Furned,	ditched	+ pl	whed ;	a ra	د		1
EOETATION	line enland							ł
IEGETATION	- Use scient	fic names of pla		Dominant h		ominance Test w		
Tree Stratum (F	lot size:	)		Species?	~	kumber of Dominal		
1.						hat Are OBL, FAC	W, or FAC:	W
2.						otal Number of Do	mined	
3						ipecies Across Ail		(8)
4					_	ercent of Dominar	t Species	
Senting/Shub St	natum (Plot size:	`		* Total Cove	r   ۱	hat Are OBL, FAC	W. or FAC:	
					1	revalence index	worksheet:	
						Total % Cover	of: Multiply	by:
							×1×	
					F		x2=	
5					F	AC species	×3=	
Mark Otrat. on //	Plot size:		·····	= Total Cove	(		×4=	
		¹					x\$=	
						olumn Totals:		
						Prevalence in	dex = B/A =	
							istion Indicators:	
						Dominance Ter	st is >50%	
						Prevalence Ind		1
					-	Morphological /	Adaptations' (Provide a larks or on a separate a	upporting
						Wetland Non-V		n n/#1/
							drophytic Vegetation ¹	Explain)
	······						a a land wetland hydro	
11	·····				b	e present, unless o	disturbed or problemati	c.
Woody Vine Stra	ium (Pictsuze:			* Total Cover				
					+	lydrophytic		
2					1	egetation resent?	Vac No	
			-	= Total Cove		1 #0 #1 IL 1	Yes No	
	n Herb Stratum							

Western Mountains, Valleys, and Coast -- Interim Version

· · · · · · · · · · · · · · · · · · ·	lepth needed to document the indicator or confirm	In the susanna of the state of the
Depth Matrix	Redox Features	<b>.</b>
(inches) Color (moist) %	Color (moist) % Type' Loc'	Texture Remarks
4 101n3/3		1a
16 2,54 5/3	FFF	5.14/2
*Type: C=Concentration, D=Depletion, F	M=Reduced Matrix, CS=Covered or Costed Sand G	rains. ⁷ Location: PL=Pore Lining, M=Matrix,
Hydric Solf Indicators: (Applicable to		Indicators for Problematic Hydric Solis ¹ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histosol (A1) Histic Epipedon (A2)	Sanky redox (SS) Stripped Matrix (SB)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	Caner (Explain at residence)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	
Depleted Below Dark Surface (A11)		<b>1</b>
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegatation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	watland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		1
Туре:		
Depth (inches):		Hydric Soll Present? Yes No
Remarks:		
	No idea	
IYDROLOGY		er 1820 - 19
IYDROLOGY Weitend Hydrology Indicatora		u h. /
Weiland Hydrology Indicators:		
Weitland Hydrology Indicators: Primery indicators (minimum of one requ	ired: check el Bat apply)	Secondary Indicators (2.or. more resulted)
Weitand Hydrology Indicatora: Primery indicators (minimum of one requ Surface Water (A1)	ired: check all Bat apply) Water-Stained Leaves (B9) (except ML	Secondary Indicators (2 or more resulted) RAWater-Stained Leaves (B9) (NLRA 1, 2,
Weitend Hydrology Indicatora: Primery indicators (minimum of one requ Surface Water (A1) High Water Table (A2)	urad. check all Bhat apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 48)	Secondary Indicators (2 or more resulted) RA View-Stained Leaves (69) (MLRA 1, 2, 4A, and 48)
Weitand Hydrology Indicatora: Primery indicators (minimum of one requ Surface Water (A1)	ired: check all Bat apply) Water-Stained Leaves (B9) (except ML	Secondary Indicators (2 or more resulted) RAWater-Stained Leaves (B9) (NLRA 1, 2,
Weitend Hydrology Indicatora: Primery indicators (minimum of one requ Surface Water (A1) High Water Table (A2)	urad. check all Bhat apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 48)	Secondary Indicators (2 or more resulted) RA View-Stained Leaves (69) (MLRA 1, 2, 4A, and 48)
Wetland Hydrology Indicatora: <u>Primary Indicatora: Infinimum of one requ</u> Surface Water (A1) High Water Table (A2) Saturation (A3)	ired: check ell Batt apply) Water-Steined Leaves (B9) (except ML 1, 2, 4A, and 48) Selt Crust (B11)	Secondary Indicators (2 or more resulted) RA Weive-Stained Leaves (B9) (NR.RA 1, 2, AA, and 48) Drainage Patiens (B10) Dry-Seeson Water Table (C2)
Weitend Hydrology Indicators: Primery indicators (minimum of one requ Surface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marka (B1) — Sediment Deposits (B2)	Irred: check all Bat apply) 	Secondary Indicators (2 or more resulted)           RA        Wrater-Stained Leaves (B9) (NH,RA 1, 2, 44, and 48)          Drainage Patterns (B10)        Dry-Seeson Water Table (C2)          Saturation Visible on Aerial Imagery (C9)        Saturation Visible on Aerial Imagery (C9)
Weitand Hydrology Indicatora: Primary Indicators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Irad: check all litet apply) 	Secondary Indicators (2 or more resulted) RA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Seeson Water Table (C2) Seturation Visible on Aerial Imagery (C8 ots (C3) Geomorphic Position (D2)
Weitend Hydrology Indicators: Primary indicators (minimum of one requ Suface Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Mat or Crust (B4)	ired. check all that apply) 	Secondary Indicators (2 or more resulted)           RA
Weitend Hydrology Indicators: Primary indigators (minimum of one requ Sufrace Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algei Mattor Crust (B4) Iron Deposits (B5)	ired: check all that apply) 	Secondary Indicators (2 or more repaired)           RA         Water-Stained Leaves (B9) (NILRA 1, 2, 4A, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aerial Imagery (C8           Costs (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)
Weitend Hydrology Indicators: Primery indigators (minimum of one requ Sufface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marka (B1) — Sediment Deposits (B2) — Drit Deposits (B3) — Algel Mat or Crust (B4) — Iron Deposits (B5) — Surface Soil Cracks (B6)	Intel: check all Bat apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Inverterrates (B13) Hydrogen Sutfide Odor (C1) Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunied or Stressed Plants (D1) (LRR A	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary Indicators (minimum of one requ Sufrace Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drik Deposits (B2) Drik Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Soil Cracks (B6) Sufface Soil Cracks (B6)	Inter Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffice Odor (C1) Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunded or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks)	Secondary Indicators (2 or more repaired)           RA         Water-Stained Leaves (B9) (NILRA 1, 2, 4A, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aerial Imagery (C8           Costs (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)
Weitend Hydrology Indicators: Primery indigators (minimum of one requ Sufface Water (A1) — High Water Table (A2) — Saturation (A3) — Water Marka (B1) — Sediment Deposits (B2) — Drit Deposits (B3) — Algel Mat or Crust (B4) — Iron Deposits (B5) — Surface Soil Cracks (B6)	Inter Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffice Odor (C1) Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunded or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary Indicators (minimum of one requ Sufrace Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drik Deposits (B2) Drik Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Soil Cracks (B6) Sufface Soil Cracks (B6)	Inter Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sait Crust (B11) Aquatic Invertebrates (B13) Hydrogen Suffice Odor (C1) Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunded or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary indigators (minimum of one requ Sufrace Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufrace Soil Cracks (B6) Inunation Visible on Aenal Imagèry Sparsely Vegetated Concave Surface Field Observations:	ired: check all that apply) — Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) — Salt Crust (B11) — Aquatic Inverterates (B13) — Hydrogen Suffice Odor (C1) — Oxidized Rhiccopheres along Living Rot — Presence of Reduced fron (C4) — Recent fron Reduction in Titled Soils (C1 — Stunted or Stressed Plants (D1) (LRR A (B7) — Other (Explain in Remarks) a (B6)	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary Indigators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Ajasi Mat or Crust (B4) Iron Deposits (B5) Surface Sol Cracks (B6) Inundation Viable on Aenai Imagery Sparsety Vegetated Concave Surfac Field Observations: Surface Viater Present? Yee	ired: check all Bat apply) 	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary Indicators (minimum of one requ Sufrace Water (A1) High Water Table (A2) Saturation (A3) Water Marka (B1) Sediment Deposits (B2) Drit Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Sufrace Soil Cracks (B6) Sufrace Soil Cracks (B6) Invindeino Visitive on Aenai Imagery Sparsely Vegetated Concave Surface Field Observations: Surface Nater Present? Yee	Inter Check all Bat apply)  Vater-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Sat Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sutfile Odor (C1)  Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solis (C1  Other (Explain in Remarks)  (B7) No Dapth (Inches): No Dapth (Inches):	Secondary Indicators (2 or more resulted)           RA
Weitend Hydrology Indicators: Primary indicators: (minimum of one requ Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drik Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Sufface Soil Cracks (B6) Invindentor Visible on Aenal Imagery Sparsely Vegetated Concave Surfac Field Observations: Surface Water Present? Yee Water Table Present? Yee Saturation Present? Yee	Inter Check all Bat apply)  Vater-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Sat Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sutfile Odor (C1)  Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solis (C1  Other (Explain in Remarks)  (B7) No Dapth (Inches): No Dapth (Inches):	Secondary Indicators (2 or more required)           RA
Weitend Hydrology Indicators: Primary Indigators (minimum of one requ Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Viable on Aenal Imagery Sparsely Vegetated Concave Surfac Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Saturation Present? Yes	Inter Check all Bart apply)  Vater-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B1) Aquesic Invertebrates (B13) Hydrogen Suffice Odor (C1) Oxidized Rhicospheres along Living Roc Recent from Reduction in Titled Soils (C1 Stinde of Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks) e (B8) No Dapth (Inches): No Dapth (Inches): Wett	Secondary Indicators (2 or more repaired)         RA       Weter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48)         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Saturation Visible on Aerial Imagery (C8)       Gesmorphic Position (D2)         Shallow Aquitard (D3)       Shallow Aquitard (D3)         Bised Ani Mounds (D6) (LRR A)       Frost-Heave Hummocka (D7)         and Hydrology Present?       Yes No
Weitend Hydrology Indicators: Primary Indigators (minimum of one requ Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soli Cracks (B6) Inundation Visible on Aerial Imagery Sparsely Vegetated Concave Surfac Field Observations: Surface Visiter Present? Yes Surface Visiter Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes	Inter Check all Bat apply)  Vater-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Sat Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sutfile Odor (C1)  Oxidized Rhicospheres along Living Rod Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Solis (C1  Other (Explain in Remarks)  (B7) No Dapth (Inches): No Dapth (Inches):	Secondary Indicators (2 or more repaired)         RA       Weter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48)         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Saturation Visible on Aerial Imagery (C8)       Gesmorphic Position (D2)         Shallow Aquitard (D3)       Shallow Aquitard (D3)         Bised Ani Mounds (D6) (LRR A)       Frost-Heave Hummocka (D7)         and Hydrology Present?       Yes No
Weitend Hydrology Indicators: Primary Indigators (minimum of one requ Sufface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Viable on Aenal Imagery Sparsely Vegetated Concave Surfac Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes Saturation Present? Yes	ired: check all that apply)  Water-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Salt Crust (B1)  Aquatic Invertebrates (B13)  Hydrogen Suffice Odor (C1)  Oddized Rhizospheres along Living Roc Presence of Reduced fron (C4) Recent fron Reduceton in Titled Soils (C4 Stunied or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks) e (B8) No Dapth (Inches): No Dapth (Inches): No Dapth (Inches): Wetl monitoring well, serial photos, previous (Inspections).	Secondary Indicators (2 or more resulted)         RA       Water-Stained Leaves (B9) (NR.RA 1, 2, 4A, and 4B)         Drainage Patterns (B10)       Dry-Seeson Water Table (C2)         Saturation Visible on Aerial Imagery (C6)       Shallow Aquitard (C3)         Shallow Aquitard (C3)       FAC-Neutral Test (D5)         )       Raised Ani Mounds (D6) (LRR A)
Weitend Hydrology Indicators: Primary indicators: Strace Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Jurface Soil Cracks (B6) Jurface Soil Cracks (B6) Jurface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Nater Present? Yee Saturation Present? Yee Saturation Present? Yes Saturation Present?	ired: check all that apply)  Water-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Salt Crust (B1)  Aquatic Invertebrates (B13)  Hydrogen Suffice Odor (C1)  Oddized Rhizospheres along Living Roc Presence of Reduced fron (C4) Recent fron Reduceton in Titled Soils (C4 Stunied or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks) e (B8) No Dapth (Inches): No Dapth (Inches): No Dapth (Inches): Wetl monitoring well, serial photos, previous (Inspections).	Secondary Indicators (2 or more resulted)         RA       Water-Stained Leaves (B9) (NR.RA 1, 2, 4A, and 4B)         Drainage Patterns (B10)       Dry-Seeson Water Table (C2)         Saturation Visible on Aerial Imagery (C6)       Shallow Aquitard (C3)         Shallow Aquitard (C3)       FAC-Neutral Test (D5)         )       Raised Ani Mounds (D6) (LRR A)
Weitend Hydrology Indicators: Primary indicators: Strace Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drit Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Jurface Soil Cracks (B6) Jurface Soil Cracks (B6) Jurface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Nater Present? Yee Saturation Present? Yee Saturation Present? Yes Saturation Present?	ired: check all that apply)  Water-Stained Leaves (B9) (except ML  1, 2, 4A, and 4B)  Salt Crust (B1)  Aquatic Invertebrates (B13)  Hydrogen Suffice Odor (C1)  Oddized Rhizospheres along Living Roc Presence of Reduced fron (C4) Recent fron Reduceton in Titled Soils (C4 Stunied or Stressed Plants (D1) (LRR A (B7) Other (Explain in Remarks) e (B8) No Dapth (Inches): No Dapth (Inches): No Dapth (Inches): Wetl monitoring well, serial photos, previous (Inspections).	Secondary Indicators (2 or more repaired)         RA       Weter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 48)         Drainage Patterns (B10)       Dry-Sesson Water Table (C2)         Saturation Visible on Aerial Imagery (C8)       Gesmorphic Position (D2)         Shallow Aquitard (D3)       Shallow Aquitard (D3)         Bised Ani Mounds (D6) (LRR A)       Frost-Heave Hummocka (D7)         and Hydrology Present?       Yes No

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Western Mountains, Valleys, and Coast - Interim Varsion

_Ath

roject/site: Har	sistus	City/County:	Mary	sulle	Sampling Data:	2-28
plicant/Owner:	~ ~				Sampling Point:	DP=
vestigator(s): 21	Semel	Section, Town	ship, Range:			
ndform (hillslope, terrace, etc.):		Local relief (o	onceve, conve	вя, поне)	Sion	× (%):
ubregion (LRR)			Lor	ve:	Datu:	n:
# Map Unit Name:				NWI class	ification:	
e climatic / hydrologic conditions or	the site typical for this time of	year? Yes				/
e Vegetation Soit	or Hydrology Significant	tly disturbed?	Are "Nom	nal Circumstance	s' present? Yes	No
e Vegetation Soit	or Hydrology naturally	problematic?			wers in Remarks.)	
UMMARY OF FINDINGS -	Attach site map showin	ng sampling	point local	tions, transec	ts, important fe	atures, etc.
hydrophytic Vegetation Present?	YesNo			gang an ni pagah ny kiango ni amidiri		_
tydric Soil Present?	Yes No		Sempled Area		No	
Netland Hydrology Present?	Yes No	within	a Wetland?	Yes	NO	.
remarks - above	Vormal rainf		1-tran			
- Furned		Junked !	an rai	,		
,	<i>L</i>		- '-'y	<b></b>		
EGETATION - Use scientil						
res Stratum (Plot size:		te Dominant In er Species?	Makes	minance Test wi	*****	
				mber of Dominan	t Species N. or FAC:	(A)
•			1			~~~ ~~
				tal Number of Dor ecies Across All S		(8)
· · · · · · · · · · · · · · · · · · ·						
		- Total Cove	r Th	rcent of Dominani at Are OBL, FACV	N, or FAC:	(A/8)
septing/Shrub Stratum (Plot size:						
				evalence index w		
					<u>f:Multiph</u> ×1≠	
k					x2=	
			and a select of the		×3=	
**		. Total Cove			x4=	
terb Stratum (Plot size:	)			L species	x5=	
				iumn Totals:		
) ************************************				Sec. union o a fina	- <b>1</b> 7/6 -	
),				Prevalence inc	ation indicators:	
				Dominance Tes		
				Prevalence Inde		
·				Morphological A	deptations' (Provide	supporting
,					arks or on a separate	sheet)
).				Wetland Non-Ve		
0.					trophytic Vegetation'	
1			be	present, unless d	soli and wetland hydr isturbed or problemat	ology must hc.
1		- Total Cover				
Voody Vine Stratum (Plot size:				duo adu di -		
^{r.}			Ve	drophytic getation		
×		* Total Cover	Pri Pri		Yes No	
6 Bare Ground in Herb Stratum	interpreter and a second se					
temaria:	me grand,	. /	1			

Western Mountains, Valleys, and Coast - Interim Version

SOIL Sempting Point: Profile Description: (Descript to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Color (moist) Color (maist) Type Loc Texture ..... Remarks (inches) 104h2/2 2.5 4/4 Jong and ²Location: PL=Pore Lining, M=Matrix, Indicators for Problematic Hydric Solis³ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) ____ Sandy Redox (S5) ____ 2 cm Muck (A10) Histosol (A1) Red Parent Material (TF2) Histic Epipedon (A2) Stripped Matrix (S8) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Other (Explain in Remarks) ...... Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) ____ Depisted Below Dark Surface (A11) ___ Depleted Matrix (F3) ¹Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Redox Dark Surface (F6) _ Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) watland hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No Remarks' No Alector HYDROLOGY Wetland Hydrology Indicators: Primary indicators (minimum of one required; check all that apply). Secondary Indicators (2 or more resurred) Surface Water (A1) ____ Water-Steined Leaves (B9) (except MLRA ____ Water-Stained Leaves (B9) (MLRA 1, 2, 1, 2, 4A, and 4B) 4A, and 4B} ____ High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) ----Dry-Season Water Table (C2) Water Marks (B1) ____ Aquatic Invertebrates (B13) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) _ ___ Shallow Aquitard (D3) ____ Presence of Reduced iron (C4) ____ Algal Mat or Crust (84) Recent Iron Reduction in Tilled Soils (C8) FAC-Neutral Test (D5) fron Deposits (86) ____ Raised Ant Mounds (D6) (LRR A) ____ Stunied or Stressed Plants (D1) (LRR A) ____ Surface Soil Cracks (B6) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Depth (inches) Water Table Present? Booth (inches): Yes No Saturation Present? No ____ Depth (inches); Wetland Hydrology Present? Yes No Yes (includes capillary fringe) [ Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if evailable: Remarks: No indicates

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oject/Site: Harsu	Sisnig	_ City/County:	Marysville sampling Dates 2-28
plicant/Owner:			State: WA Sampling Point: DP+
vestigator(s):	Sewall	Section, Town	ship. Range:
indform (hillslope, terrace, etc.):			ncave, convex, none) Stope (%):
ibregion (LRR)	Lat		Long: Detum:
xi Map Unit Name:			NWI classification:
e climatic / hydrologic conditions (	on the site typical for this time of	year? Yes	No (If no, explain in Remarks.)
e Vegetation Soit	or HydrologySignificant	lly disturbed?	Are "Normal Circumstances" present? Yes No
e Vegetation Soit	or Hydrology naturally (	problematic?	(If needed, explain any answers in Remarks.)
IMMARY OF FINDINGS -	Attach site man chowin	og sampling i	point locations, transects, important features, etc.
		A secolaria i	
tydrophytic Vegetation Present?	Yes No	is the S	ampled Area
lydric Soil Present? Nelland Hydrology Present?	Yes No		Wetland? Yes No
	Yes No		
- ROOVE	Normal rainf	Fell gt	tim
- furmed	, ditched + p	lance ,	r r y e
EGETATION - Use scient	fic names of plants.		
	Absolu	te Dominant In	
ree Stratum (Plot size:		er. Species? S	I PROTIDE OF DOCIDINAL SUBCIDE
			1
			1 JOINE NERVOR OF LYNNARY
**************************************			Species Across All Strata: (B)
· · · · · · · · · · · · · · · · · · ·		- Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
apling/Shrub Stratum (Plot size:			
·			
· · · · · · · · · · · · · · · · · · ·			
l			FAC species x 3 =
		= Total Cover	
terb Stratum (Plot size:	)		UPL species x 5 =
·			Column Totals: (A) (B)
			Prevalence index = B/A =
l,			
			Dominance Test is >50%
·			Prevalence Index is \$3.01
· ••••••••••••••••••••••••••••••••••••			Morphological Adaptations' (Provide supporting
,			date in Hemarks or on a separate sheet)
			Wetland Non-Vescular Plants' Problematic Hydrophytic Vegetation' (Explain)
0			Problematic Hydrophytic Vegetation (Explain)     Indicators of hydric soil and wetland hydrology must
1			be present, unless disturbed or problematic.
Voody Vine Stratum (Plot size: _	1		
·			Hydroshytic
······			Vegetation
		= Total Cover	Present? Yes No
6 Bare Ground in Herb Stratum			

Western Mountains, Valleys, and Coast - Interim Version

SOIL Sempting Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Matrix Texture linches S Type Remarks Color (moist) Color (moist) 104h313 2.54 5/3 alt Im Am En Al 16 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soll indicators: (Applicable to all LRRs, unless otherwise noted.) ndicators for Problematic Hydric Solis¹ ____ 2 cm Muck (A10) Histosof (A1) ____ Sandy Redox (S5) Histic Epipedon (A2) ____ Stripped Matrix (S6) Red Parent Material (TF2) ___ Other (Explain in Remarks) Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depieted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Indicators of hydrophytic vegetation and -Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) watiand hydrology must be present, unless disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F6) Restrictive Layer (If present): Type: Hydric Soll Present? Yes Depth (inches): No Remarks: No indiales HYDROLOGY Wetland Hydrology Indicators: Secondary Indicators (2 or more required) Primary indicators (minimum of one required; check all that apply) Water-Stained Leaves (89) (except MLRA Water-Stained Leaves (B9) (MILRA 1, 2, ___ Surface Water (A1) High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (610) Aquatic Invertebrates (B13) ..... Dry-Season Water Table (C2) Water Marks (B1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (B2) ..... Hydrogen Sulfide Odor (G1) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Drift Opposits (B3) Algal Mat or Crust (84) ____ Presence of Reduced iron (C4) ____ Shallow Aquitard (D3) ____ FAC-Neutral Test (D5) Iron Deposits (85) Recent Iron Reduction in Tilled Soils (C6) ...... Surface Soil Cracks (B6) Stunted or Stressed Plants (D1) (LRR A) Reised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (97) Other (Explain in Remarks) ____ Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (88) Field Observations: Depth (inches); Surface Water Present? Water Table Present? Yes Sopth (Inches): Saturation Present? Yes No Depth (Inches); Watland Hydrology Present? Yes (includes capitary hinge) Describe Recorded Data (stream dauge, monitoring well, aerial photos, previous inspections), if available: Remarks No indicates

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roject/Site: Haren	Sisting	City/County:	Manysville sampling Date: 2-28
ppicant/Dwner:	, , ,		State: WA Sampling Point: DP#
vestigator(s): 2.4	Sewall	_ Section, Town	sahip, Range:
andform (hillslope, terrace, etc.)			oncave, convex, none): Siope (%):
			Long: Datum:
oil Map Unit Name:			NWI classification:
			No (If no, explain in Remarks.)
re Vegetation Soit			Are "Normal Circumstances" present? Yes No
ve Vegetation Soil			(If needed, explain any answers in Remarks.)
			point locations, transects, important features, etc.
UMMART OF FINDINGS -	Auach site map shows	ið ssubund t	point locadons, vansecus, important reatures, etc.
Hydrophytic Vegetation Present?	Yes No	- is the S	Sempled Area
Hydric Soll Present?	Yes No		a Wetland? Yes No
Wetland Hydrology Present?	Yes No		
Remarks - above 1	vormal reinf		h-thing
- Furned,	artched + p	lanted a	n rye
EGETATION - Use scientif	ic names of plants.		
	Absolu	te Dominant Inc	
Tree Statum (Plot size:		er. Species? S	
). 			Species Across All Strats: (B)
**		* Total Cover	Percent of Dominant Species That Are OBL, FACW. or FAC: (A/B)
Sapling/Shrub Stratum (Plot size: _	)		marrie contribute of the
i			
2			
3			OBL species         x 1 z           FACW species         x 2 z
l		perfect many transmission and property	FAC species x 3 =
·		= Total Cover	
Herb Stratum (Plot size:			UPL species x 5 =
I			
I			Dominance Test is >50%
			Characterization in an al
1.			Morphological Adaptations ¹ (Provide supporting
}			date in Remarks or on a separate sheet)
).			Wetland Non-Vascular Plants
10			Problematic Hydrophytic Vegetation' (Explain)
11			¹ Indicators of hydric solf and wetland hydrology must be present, unless disturbed or problematic.
Noody Vine Stratum (Plot size:		Totel Cover	
POODV VENE SUZALINI (PICI SIZE:			Hydrophytic
			Vegetation
		= Total Cover	Present? Yes No
& Bare Ground in Herb Stratum			
		An an and a second s	
emerica	me ground	/ /	11 A

Western Mountains, Valleys, and Coast - Interim Version

SOIL Sampting Point: Profile Description: (Describe to the depth needed to document the indicator or onfirm the absence of indicators.) Depth Matrix Redox Features Color (moist) Color (moist) % Type' Loc' Texture (inch Remarks IUR 4/4 1 an 16 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls³: ____ Sandy Redox (S5) ____ 2 cm Muck (A10) Histosol (A1) Red Parent Material (TF2) Histic Epipedon (A2) ____ Stripped Matrix (S6) Loamy Mucky Mineral (F1) (except MLRA 1) Black Histic (A3) ____ Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleved Metrix (F2) ____ Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Redox Dark Surface (F6) ⁵indicators of hydrophytic vegetation and -----Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Gleved Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Hydric Soll Present? Yes Depth (inches): ___ Remarks: No dectors HYDROLOGY Weiland Hydrology Indicators: Primary indicators (minimum of one required: check all that apply). Secondary Indicators (2 or more required) ____ Water-Stained Leaves (B9) (except MLRA _ Surface Water (A1) Water-Stained Leaves (B9) (NR,RA 1, 2, High Water Table (A2) 1, 2, 4A, and 4B) 4A, and 4B) ____ Salt Crust (B11) ____ Drainage Patterns (B10) Saturation (A3) ____ Aquatic Invertebrates (B13) ___ Dry-Season Water Table (C2) Water Marka (B1) ____ Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) Drift Deposits (83) Oxidized Rhizospheres along Living Roots (C3) ____ Geomorphic Position (D2) Presence of Reduced Iron (C4) ____ Shallow Aquitard (D3) Algel Met or Crust (B4) ____ Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (85) ____ FAC-Neutral Test (D5) ____ Raised Ant Mounds (D6) (LRR A) ____ Surface Soil Cracks (B6) Stunied or Stressed Plants (D1) (LRR A) -Frost-Heave Hummocks (07) Inundation Visible on Aerial Imagery (87) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (88) Field Observations: Surface Water Present? Santh (inches) Water Table Present? Depth (inches) Yes No Saturation Present? Depth (inches): Watland Hydrology Present? Yes Yes (notudes capitary fringe) Describe Recorded Data (stream gauge, monitoring well, serial photos, previous inspections), if available: Remarks: No intientes

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roject/site: Harry	~ sishing	City/County:	Mary	sulle	Sampling Date	2-28
pplicant/Dwner:			1		Sampling Point:	DAN
vestigator(s):	Semel	Section, Town	vahip, Range:			
indform (hillstops, terrace, etc.	):	Local relief (r	OTCEVO. CONV	sx, none).	Siope	(%):
ubregion (LRR)	Lat_		Loi	ng:	Datum:	
oli Map Unit Name:				NWI classifi	cation:	
	ns on the site typical for this time of	year? Yes				/
a Vegetation Soit		liv disturbed?	Are "Norr	nel Circumstances"	present? Yes	No
	or Hydrology naturally	-		d, explain any answe		
	3 - Attach site map showi			tione transat	- Important ford	
		A sauchund	pount roce		,	
Hydrophytic Vegetation Preser	descent and a second	is the	Sampled Are	•		
Hydric Soil Present?	Yes No	within	s Wetland?	Yes	No	
Wetland Hydrology Present? Remarks	Yes No					
- above	Normal raist		1-tra			
- termes	l, ditched + p	Inted	a ry	<u> </u>		
EGETATION - Use sci	ntific names of plants.					
		te Dominant li		minance Tast wor	ksheet:	
Iner Stortum (Plot size:		er Species?	1 100	mber of Dominant S		
• _h/				at Are OBL, FACW,	or FAC:	(A)
				tal Number of Domi ecies Across All Str		(0)
~	*****		1			(B)
***		- Total Cove	Pe	rcent of Deminant S at Are OBL, FACW.		(A/B)
Saplino/Shrub Stratum (Plot :	ize:)					
I		-		evalence index wo		
					Multiply b	
					×1 =	
					x3=	
		- Total Cove			x4=	
ierb Stratum (Piot size:	)		· · · · ·		x5=	
	*******				(A)	
				Prevalence inde: drophytic Vagelati		**************************************
	······			Dominance Test is		
j				Prevalence Index		
					aptations' (Provide su	
	· · · · · · · · · · · · · · · · · · ·				is or on a separate st	veet)
				Wetland Non-Ves		
0					ophytic Vegetation' (E ill and wetland hydrole	
1			be		when and welland hydrole wheel or problematic.	
Noody Vine Stratum (Plot sz		= Total Cove				
	a;		يعلو	drophytic		
2.			Ve	detation		
***************************************		= Total Cove	Pn	eent? Y	No	
% Bare Ground in Herb Stratu	n					
Remarks:	bone ground	1 1	11.1			
	LIMA LOUND					

SOIL Sampling Point: Profile Description: (Describe to the depth needed to document the indicator or confirm the elsence of indicators.) Depth Matrix Redox Features (inche Color (moist) Color (moist) Type Loc Texture Remarks % 10YR313 1 an 16 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: ____ 2 cm Muck (A10) Histosol (A1) ____ Sandy Redox (S5) ...... Red Parent Material (TF2) Histic Epipedon (A2) Stripped Metrix (S6) ____ Other (Explain in Remarks) Stack Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2) Depinted Below Dark Surface (A11) Depleted Matrix (F3) -----Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) watland hydrology must be present. Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Hydric Soil Present? Yes No_ Remarks No ideates HYDROLOGY Wetland Hydrology Indicators: Primary indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) ___ Surface Water (A1) ...... Water-Steined Leaves (B9) (except MLRA Water-Stained Leaves (B9) (MILRA 1, 2, ____ 1, 2, 4A, and 4B) 4A, and 4B) ...... High Water Table (A2) Saturation (A3) Salt Crust (B11) Drainage Patiens (B10) Water Marks (B1) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) ...... Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Sediment Deposits (82) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) ____ Algel Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) ------Recent Iron Reduction in Tilled Solis (C6) FAC-Neutral Test (D5) Iron Deposits (85) Stunied or Stressed Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) ..... Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Frost-Heave Hummocks (D7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Bepth (inches) Water Table Present? **Depth (inches)** Saturation Present? Depth (inches) Watland Hydrology Present? Yes Yes Ń۵. (includes capitary fringe) Describe Recorded Data (streem gauge, monitoring well, serial photos, previous inspections), if available: Remarks: No iducates

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Western Mountains, Valleys, and Coast - Interim Version

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xil Map Unit Name:         e climatic / hydrologic conditions on the site typical for this time of year? Yes	Slope (%):
Indform (hillslope, terrsce, etc.):       Local relief (         sibregion (LRR):       Lat:         sil Map Unit Name:       Lat:         se climatic / hydrologic conditions on the site tysical for this time of year? Yes	Slope (%):
ibregion (LRR)       Lat         sil Map Unit Name:	Long:       Datum:         NO       (If no, explain in Remarks.)         Are 'Normal Circumstances' present? Yes       No         (If needed, explain any answers in Remarks.)       No         point locations, transects, important features, etc.         iampled Arss       No         a Wetland?       Yes         Yes       No
xil Map Unit Name:         e climatic / hydrologic conditions on the site typical for this time of year? Yes	NVI classification:
xil Map Unit Name:         e climatic / hydrologic conditions on the site typical for this time of year? Yes	NVI classification:
e VegetationSoil or HydrologySignificantly disturbed? e VegetationSoil or Hydrologynaturally problematic? UMMARY OF FINDINGS - Attach site map showing sampling hydrophytic Vegetation Present? YesNo is the within Hydrology Present? YesNo is the within Hydrology Present? YesNo Welland Hydrology Present? YesNo Welland Hydrology Present? YesNo tes Stratum (Plot size:) Septing/Shrub Stratum (Plot size:) Hetb Stratum (Plot size:) = Total Cove	Are 'Normal Circumstances' present? Yes No       No         (If needed, explain any answers in Remarks.)       Doolnt locations, transects, important features, etc.         iampled Area       as Wetland?       No
e Vegetation Soil or Hydrology naturally problematic? UMMARY OF FINDINGS - Attach site map showing sampling hydrophytic Vegetation Present? Yes No is the within Hydrology Present? Yes No is the within Vetland Hydrology Present? Yes No is the within "Eremarks" Above No is the "EGETATION - Use scientific names of plants. EGETATION - Use scientific names of plants. Inse Stratum (Plot size:) Xcover. Species? septimg/Shrub Stratum (Plot size:) = Total Cove terb Stratum (Plot size:) = Total Cove	(If needed, explain any answers in Remarks.)         boolnt locations, transects, important features, etc.         iampled Arss         is Wetland?         Yes         No
e VegetationSoilor Hydrologynaturally problematic? UMMARY OF FINDINGS - Attach site map showing sampling tydrophytic Vegetation Present? YesNo	(If needed, explain any answers in Remarks.)         boolnt locations, transects, important features, etc.         iampled Arss         is Wetland?         Yes         No
JMMARY OF FINDINGS - Attach site map showing sampling         hydrophytic Vegetation Present?       Yes       No       Is the         hydrophytic Vegetation Present?       Yes       No       Is the         vettand Hydroboy Present?       Yes       No       Is the         'semarks'       - & & & & & & & & & & & & & & & & & & &	Dominance Test worksheet:         Saturd P         Yes         No         Status         Moritand?         Yes         No         Status         Number of Dominant Species         That Are OBL, FACW, or FAC:         (A)         Total Number of Dominant         Species Across All Strate:         (B)         Percent of Dominant Species         That Are OBL, FACW, or FAC:         (A/B)         Prevalence Index worksheet:         Total Species         X1 =         FACW species       X1 =         FACW species       X2 =
hydrophytic Vegetation Present? YesNo Is the within tydrophytic Soil Present? YesNo within tydrology Present? YesNo within tydrology Present? YesNo	ampled Arsa a Wetland? YesNo
tydric Soil Present?       YesNo	s Wetland? Yes No Ketland? No Ketland? No Ketland? No Ketland? No Ketland? No Ketland Species Constant Species Across All Strate: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Provelence Index worksheet: (B) Provelence Index worksheet: (A/B) Provelence Index
tydric Soil Present?       Yes       No       within         Wetland Hydrology Present?       Yes       No       within         "Remarks"       - & & & Vor null regiments       within         EGETATION - Use scientific names of plants.       Absolute       Dominant I         Interesting (Plot size:       )       ½ Cover.       Species?         Stabling/Shrub Stratum       (Plot size:       )       * Total Cover.         Machine	s Wetland? Yes No Ketland? No Ketland? No Ketland? No Ketland? No Ketland? No Ketland Species Constant Species Across All Strate: (B) Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Provelence Index worksheet: (B) Provelence Index worksheet: (A/B) Provelence Index
temarks - above Normal rein Fill g - Finned, attack + planted EGETATION - Use scientific names of plants. Bescies?	
- Funce, Artched + planted  EGETATION - Use scientific names of plants.  Iree Stratum (Plot size:)  iapling/Shrub Stratum (Plot size:)  Hetb Stratum (Plot size:)  Total Cove	Sector       Dominance Test worksheet:         Number of Dominant Species       That Are OBL, FACW, or FAC:         Total Number of Dominant       Species Across All Strata:         Percent of Dominant Species       (B)         Prevalence Index worksheet:       (A/B)         Prevalence Index worksheet:       (A/B)         Prevalence Index worksheet:       Total % Cover of:         OBL, Species       x1 =         FACW species       x 2 =
- Funned, diffed t planted EGETATION - Use scientific names of plants. Absolute Dominant I (ree Stratum (Plot size:) Sabling/Shrub Stratum (Plot size:) (Plot size:) Total Cove = = Total Cove = = Total Cove = = Total Cove	Sector       Dominance Test worksheet:         Number of Dominant Species       That Are OBL, FACW, or FAC:         Total Number of Dominant       Species Across All Strata:         Percent of Dominant Species       (B)         Prevalence Index worksheet:       (A/B)         Prevalence Index worksheet:       (A/B)         Prevalence Index worksheet:       Total % Cover of:         OBL, Species       x1 =         FACW species       x 2 =
EGETATION – Use scientific names of plants.         Iree Stratum (Plot size:)         Sizeling/Shrub Stratum (Plot size:)	
Absolute     Dominant I       Ys Cover,     Species?       Species?	Jatus     Number of Dominant Species       That Are OBL, FACW, or FAC:     (A)       Total Number of Dominant     (B)       Percent of Dominant Species     (B)       Prevalence Index worksheet:     (A/B)       OBL, Species     x1 =       FACW species     x1 =       FACW species     x2 =
erb Stratum (Plot size:) <u>% Cover</u> . Species? apling/Shrub Stratum (Plot size:) ~ Total Cove erb Stratum (Plot size:) = Total Cove = Total Cove	Jatus     Number of Dominant Species       That Are OBL, FACW, or FAC:     (A)       Total Number of Dominant     (B)       Percent of Dominant Species     (B)       Prevalence Index worksheet:     (A/B)       OBL, Species     x1 =       FACW species     x1 =       FACW species     x2 =
Total Cove	Total Number of Dominant Species       (A)         Total Number of Dominant       Species Across All Strata:       (B)         Percent of Dominant Species       (B)         Prevalence Index worksheet:
apling/Shrub Stratum (Plot size:)         ~ Total Cove	Total Number of Dominant         Species Across All Strata:         (B)         Percent of Dominant Species         That Are OBL, FACW, or FAC:         (A/B)         Prevalence Index worksheet:
apling/Shrub Stratum (Plot size:) ~ Total Cove	Species Across All Strata:         (B)           Percent of Dominant Species         (A/B)           Prevalence Index worksheet:         (A/B)           Total % Cover of:         Muttiply by:           OBL species         x1 =           FACW species         x 2 =
apling/Shrub Stratum (Plot size:) ~~~ Total Cove	That Are OBL, FACW, or FAC:         (A/B)           Prevalence index worksheet:
iaeling/Shrub Stratum         (Piot size:)	That Are OBL, FACW, or FAC:         (A/B)           Prevalence index worksheet:
= Total Cove	Total % Cover of:         Multiply by:           OBL species         x 1 *           FACW species         x 2 *
= Tolel Cove	Total % Cover of:         Multiply by:           OBL species         x 1 *           FACW species         x 2 *
	OBL species         x 1 ±           FACW species         x 2 ±
letb Stratum         (Plot size:)	FACW species x 2 =
etb Stratum (Plot size:) = Total Cove	1.1.0 opened
	FACU species x.4 =
	UPL species x 5 =
· · · · · · · · · · · · · · · · · · ·	
	Morphological Adaptations' (Provide supporting
	data in Kemarks of on a separate sheet)
	Wetland Non-Vascular Plants
0	Problematic Hydrophytic Vegetation' (Explain)
1,	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
and Whe Statum (Blat size)* Total Cove	
loody Vine Stratum (Plot size:)	the star when star
·	Hydrophytic Vegetation
- Talal Cause	Present? Yes No
6 Bare Ground in Herb Stratum	
emarks:	

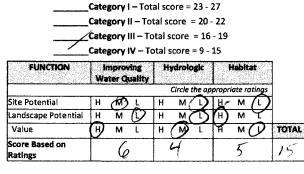
n	oth needed to document the indicator or confirm	
Depth Matrix (inches) Color (moist) %	Redox Festures Color (moist) % Type' Loc'	
16 101k314	·	Tun
		· · · · · · · · · · · · · · · · · · ·
Type: C=Concentration, D=Depletion, RM	=Reduced Matrix, CS=Covered or Coated Sand G	rains. ² Location: PL=Pore Lining, M=Matrix.
tydric Soll Indicators: (Applicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solis ³ :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	) Other (Explain in Remarks)
Hydrogen Sulfide (A4) Depleted Below Dark Surface (A11)	Loamy Gleyed Matrix (F2) Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (\$1)	Depleted Dark Surface (F7)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
testrictive Layer (if present):		1
Type:	and the second	
Depth (inches)		Hydric Soil Present? Yes No
	No statio	ertr 5
	No Hic	cotr 5
Vetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Vetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Vetland Hydrology Indicators: Primary indicators (minimum of one require	d. check sil that apply)	Secondary Indicators (2 or more required)
Vetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1)	d. check all that apply) Water-Stained Leaves (86) (except ML 1, 2, 4A, and 48) Saft Crust (81)	Secondary Indicators (2 or more required) RA Water-Stained Leaves (B9) (MLRA 1, 2,
Vetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	d. check all that apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 48)	Secondary Indicators (2 or more required) RA Water-Stained (seves (B9) (MLRA 1, 2, 4A, and 48) Drainage Patterns (B10) Dry-Season Water Table (C2)
Vetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3)	d. check all that apply) Water-Stained Leaves (69) (except ML 1, 2, 4A, and 48) Sait Crust (811) Aquatic Invertebrates (813) Hydrogen Sulfide Odor (C1)	Secondary Indicators (2 or more required)           RA
Vetiland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	d. check all that apply) Water-Stained Leaves (89) (except ML 1, 2, 4A, and 4B) Salt Crust (811) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro	Secondary Indicators (2 or more required)      RA Water-Stained Leaves (B9) (MLRA 1, 2,          4A, and 4B)     Drainage Patients (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aeriat Imagery (C9 ots (C3) Geomorphic Position (D2)
Netland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mar (or Crust (B4)	d. check all that apply) 	Secondary Indicators (2 or more required)           RA
Vetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algel Mat or Crust (B4) Iron Deposits (B5)	d. check all that apply) 	Secondary Indicators (2 or more required)           RA
Weisand Hydroiogy Indicators:           Primary Indicators (minimum of one require           Surface Water (A1)           High Water Table (A2)           Saturation (A3)           Water Marks (B1)           Sediment Deposits (B2)           Drift Deposits (B3)           Algel Mat or Crust (B4)           Iron Deposits (B5)           Surface Soil Cracks (B6)	d. check all that apply) 	Secondary Indicators (2 or more required)           RA         Water-Stained Leaves (B9) (MLRA 1, 2, 4, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aeriat Imagery (C9 ots (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)           Heave Ant Mounds (D6) (LRR A)         Mounds (D6) (LRR A)
Vetland Hydrology Indicators: ?rimary indicators (minimum of one require 	d. check all that apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro- Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunied or Stressed Plants (D1) (LRR A 7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)           RA
Netland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Agel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aenal Imagery (B Sparsely Vegetated Concave Surface (	d. check all that apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Ro- Presence of Reduced Iron (C4) Recent Iron Reduction in Titled Solis (C1 Stunied or Stressed Plants (D1) (LRR A 7) Other (Explain in Remarks)	Secondary Indicators (2 or more required)           RA         Water-Stained Leaves (B9) (MLRA 1, 2, 4, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aeriat Imagery (C9 ots (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)           Heave Ant Mounds (D6) (LRR A)         Mounds (D6) (LRR A)
Vetland Hydrology Indicators: Primary Indicators (minimum of one require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Softment Deposits (B2) Drift Deposits (B3) Algel Mart or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Innutation Visible on Aerial Imagery (B Sparsely Vegetated Concave Surface ( Teld Observations:	d, check all that apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sait Crust (B11) Aqustic Invertebrates (B13) Hydrogen Suifde Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Resent Iron Reduction in Titles Osits (C1) Resent Iron Reduction in Titles Osits (C1) Resent Iron Reduction in Titles Osits (C1) Stunted or Stressed Plants (D1) (LRR A 57) Other (Explain in Remarks) [88)	Secondary Indicators (2 or more required)           RA         Water-Stained Leaves (B9) (MLRA 1, 2, 4, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aeriat Imagery (C9 ots (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)           Heave Ant Mounds (D6) (LRR A)         Mounds (D6) (LRR A)
Netland Hydrology Indicators: Primary indicators (mitrimum of one require 	d, check all that apply) Water-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sait Crust (B11) Aqustic Invertebrates (B13) Hydrogen Suifde Odor (C1) Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4) Resent Iron Reduction in Titles Osits (C1) Resent Iron Reduction in Titles Osits (C1) Resent Iron Reduction in Titles Osits (C1) Stunted or Stressed Plants (D1) (LRR A 57) Other (Explain in Remarks) [88)	Secondary Indicators (2 or more required)           RA         Water-Stained Leaves (B9) (MLRA 1, 2, 4, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aeriat Imagery (C9 ots (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)           Heave Ant Mounds (D6) (LRR A)         Mounds (D6) (LRR A)
Weitand Hydrology Indicators:           Primary Indicators (minimum of one require 	d. check all that apply)	Secondary Indicators (2 or more required)           RA         Water-Stained Leaves (B9) (MLRA 1, 2, 4, and 4B)           Drainage Patterns (B10)         Dry-Season Water Table (C2)           Saturation Visible on Aeriat Imagery (C9 ots (C3)         Geomorphic Position (D2)           Shallow Aquitard (D3)         FAC-Neutral Test (D5)           Heave Ant Mounds (D6) (LRR A)         Mounds (D6) (LRR A)
Weitand Hydrology Indicators:           Primary Indicators (minimum of one require 	d. check all that apply)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerist Imagery (C9     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ani Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Weitand Hydrology Indicators:           Primary Indicators (minimum of one require 	d. check all that apply)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerist Imagery (C9     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ani Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
Weitand Hydrology Indicators:         Primary Indicators (minimum of one require Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Agel Mator Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aenal Imagery (B         Sparsely Vegetated Concave Surface (Field Observations:         Surface Water Present?         Yes         Staturation Present?         Yes         Includes capiliary fringe)         Describe Recorded Data (stream gauge, minimager)	d. check all that apply)	Secondary Indicators (2 or more required)     Water-Stained Leaves (B9) (MLRA 1, 2,     4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerist Imagery (C9     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ani Mounds (D6) (LRR A)     Frost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Aigel Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aenal Imagery (B Sparsely Vegetated Conceve Surface ( Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes	d. check all that apply)  Vater-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sat Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Oddr (C1) Oddized Rhizospheres along Living Roi Presence of Reducad Iron (C4) Recent Iron Reduction in Tilled Solis (C1 Sunted or Stressed Plants (D1) (LRR A C) Other (Explain in Remarks) (B8) No Dapth (inches): No Depth (inches): Veta No Depth (inches): Veta No No Depth (inches): Veta Veta Veta Veta Veta Veta Veta Veta	Secondary Indicators (2 or more required)         RA
Weitand Hydrology Indicators:         Primary Indicators (minimum of one require Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Agel Mator Crust (B4)         Iron Deposits (B5)         Surface Soil Cracks (B6)         Inundation Visible on Aenal Imagery (B         Sparsely Vegetated Concave Surface (Field Observations:         Surface Water Present?         Yes         Staturation Present?         Yes         Includes capiliary fringe)         Describe Recorded Data (stream gauge, minimager)	d. check all that apply)  Vater-Stained Leaves (B9) (except ML 1, 2, 4A, and 4B) Sat Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Oddr (C1) Oddized Rhizospheres along Living Roi Presence of Reducad Iron (C4) Recent Iron Reduction in Tilled Solis (C1 Sunted or Stressed Plants (D1) (LRR A C) Other (Explain in Remarks) (B8) No Dapth (inches): No Depth (inches): Veta No Depth (inches): Veta No No Depth (inches): Veta Veta Veta Veta Veta Veta Veta Veta	Secondary Indicators (2 or more required)         RA
Wetland Hydrology Indicators:         Primary Indicators (minimum of one require Surface Water (A1)         High Water Table (A2)         Saturation (A3)         Water Marks (B1)         Sediment Deposits (B2)         Drift Deposits (B3)         Agel Mat or Crust (B4)         Inon Deposits (B5)         Surface Soil Cracks (B6)         Invodation Visible on Aenal Imagery (B         Sparsely Vegetated Concave Surface (Feid Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Includes capiliary fringe)       Describe Recorded Data (stream gauge, m)	d. check all that apply)	Secondary Indicators (2 or more required)         RA

Wetland name or number	
Potuhul	offsite method to north
RATING SUMMAR	RY – Western Washington
Name of wetland (or ID #):	Date of site visit: <u>2</u> - 2 & − 1 & Trained by Ecology? <u>Y</u> €sNo Date of training
Rated by Ed Sand	Trained by Ecology? No Date of training
HGM Class used for rating	Wetland has multiple HGM classes?YN

NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map ______

OVERALL WETLAND CATEGORY _____ (based on functions ____ or special characteristics ____)

#### 1. Category of wetland based on FUNCTIONS



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	1 11
Wetland of High Conservation Value	1
Bog	1
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	1 []
interdunal	11111
None of the above	

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

# Maps and figures required to answer questions correctly for Western Washington

#### Depressional Wetlands

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

#### **Riverine Wetlands**

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	\$ 3.1, \$ 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	
Wetland Rating System for Western WA: 2014 Update	2	

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

#### **HGM Classification of Wetlands in Western Washington**

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

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

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

NO - go to 2

YES - the wetland class is Tidal Fringe - go to 1.1

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

NO - Saltwater Tidal Fringe (Estuarine) **YES - Freshwater Tidal Fringe** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method cannot be used to score functions for estuarine wetlands.

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

NO - go to 3 YES - The wetland class is Flats If your wetland can be classified as a Flats wetland, use the form for Depressional wetlands.

3. Does the entire wetland unit **meet all** of the following criteria?

____The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size; At least 30% of the open water area is deeper than 6.6 ft (2 m).

NO - 90 to 4

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

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

NO - go to 5

YES - The wetland class is Slope

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

5. Does the entire wetland unit meet all of the following criteria?

____The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

The overbank flooding occurs at least once every 2 years.

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

3

Wetland name or number

YES - The wetland class is Riverine

NO - go to 6 NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO - go to 7

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

NO - go to 8

YES - The wetland class is Depressional

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

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

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

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

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

DE	EPRESSIONAL AND FLATS WETLANDS		
Water Quality Functio	ns - Indicators that the site functions to improve w	ater quality	
D 1.0. Does the site have the potentia	al to improve water quality?		
D 1.1. Characteristics of surface water ou	Itflows from the wetland:		
Wetland is a depression or flat dep	pression (QUESTION 7 on key) with no surface water leaving it	(no outlet). points = 3	
Wetland has an intermittently flow	wing stream or ditch, OR highly constricted permanently flowi	ng outlet. points = 2	
Wetland has an unconstricted, or s	slightly constricted, surface outlet that is permanently flowing	points = 1	
Wetland is a flat depression (QUES	STION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	~
D 1.2. The soil 2 in below the surface (or	duff laver) is true clay or true organic (use NRCS definitions).Y	es=4 No=0 5	0
D 1.3. Characteristics and distribution of	persistent plants (Emergent, Scrub-shrub, and/or Forested Co	wardin classes):	
Wetland has persistent, ungrazed,	plants > 95% of area	points = 5	
Wetland has persistent, ungrazed,	plants > ½ of area	points = 3	
Wetland has persistent, ungrazed	plants > ¹ / ₁₀ of area	points = 1	5
Wetland has persistent, ungrazed	plants <1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding			
	at least 2 months. See description in manual.		
Area seasonally ponded is > ½ tota		points = 4	
Area seasonally ponded is > ¼ tota		points = 2	0
Area seasonally ponded is < ¼ tota	/	points = 0	
Total for D 1	Add the points in the	boxes above	7

Rating of Site Potential If score is: 12-16 = H ___6-11 = M ___0-5 = L Record the rating on the first page

D 2.0. Does the landscape have the potential to support the water quality function of the	ne site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 (No = 0)	T
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = No = 0	
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questi Source	ons D 2.1-D 2.3? Yes = No = 0	
Total for D 2 Add the points	in the boxes above	0

Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L Record the rating on the first page

D 3.0. Is the water qu	ality improvement p	rovided by	the site valu	able to society?		
D 3.1. Does the wetland 303(d) list?	l discharge directly (i.e	., within 1 m	ii) to a stream	, river, lake, or marine	water that is on the $Yes = 1$ No = 0	1
D 3.2. Is the wetland in	a basin or sub-basin w	here an aqu	atic resource i	s on the 303(d) list?	Yes=1 No=0	11
D 3.3. Has the site been if there is a TMD	identified in a waters for the basin in which			tant for maintaining wa	ter quality (enswer YES Yes = 2 No = 0	2
Total for D 3				Add the poin	ts in the boxes above	4
Rating of Value If co	ore is: 2.4 - H	1 - 55	0-1	0	ting on the first ages	

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

Record the rating on the first page

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

DEPRESSIONAL AND FLATS WETLANDS	and the second	
Hydrologic Functions - Indicators that the site functions to reduce flooding	ng and stream degradat	ion
D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	L
Wetland has an intermittently flowing stream or ditch, OR highly constricted permaner	ntly flowing outletpoints 2	р
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing	ng ditch points = 1	2
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanenti	y flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom	of the outlet. For wetlands	
with no outlet, measure from the surface of permanent water or if dry, the deepest part	t	
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	0
Marks of ponding less than 0.5 ft (6 in)	points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area	of upstream basin	
contributing surface water to the wetland to the area of the wetland unit itself.		
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	3
Entire wetland is in the Flats class	points = 5	
	nts in the boxes above	5
Rating of Site Potential If score is:12-16 = H6-11 = M6-5 = L	Record the rating on the	first pa
D 5.0. Does the landscape have the potential to support hydrologic functions of the si	ite?	
D 5.1. Does the wetland receive stormwater discharges?	Yes = 1 (No = 0)	0
0 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runo	ff? Yes = No = 0	0
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive huma	n land uses (residential at	-
>1 residence/ac, urban, commercial, agriculture, etc.)?	Yes = 1 No = 0	$\circ$
Fotal for D 5 Add the point	nts in the boxes above	0
Rating of Landscape Potential If score is:3 = H1 or 2 = M0 = L	Record the rating on the	first pa
D 6.0. Are the hydrologic functions provided by the site valuable to society?		
0 6.1. The unit is in a landscape that has flooding problems. Choose the description that best n	matches conditions around	
the wetland unit being rated. Do not add points. Choose the highest score if more than		
The wetland captures surface water that would otherwise flow down-gradient into area	as where flooding has	
	-	
damaged human or natural resources (e.g., houses or salmon redds):	points = 2	
<ul> <li>damaged human or natural resources (e.g., houses or salmon redds):</li> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> </ul>		
	points = 1	
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> </ul>	points = 1	
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> <li>Surface flooding problems are in a sub-basin farther down-gradient.</li> <li>Flooding from groundwater is an issue in the sub-basin.</li> </ul>	points = 1	
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> <li>Surface flooding problems are in a sub-basin farther down-gradient.</li> <li>Flooding from groundwater is an issue in the sub-basin.</li> <li>The existing or potential outflow from the wetland is so constrained by human or natur</li> </ul>	points = 1	,
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> <li>Surface flooding problems are in a sub-basin farther down-gradient.</li> <li>Flooding from groundwater is an issue in the sub-basin.</li> </ul>	points = 1	)
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> <li>Surface flooding problems are in a sub-basin farther down-gradient.</li> <li>Flooding from groundwater is an issue in the sub-basin.</li> <li>The existing or potential outflow from the wetland is so constrained by human or natur water stored by the wetland cannot reach areas that flood. <i>Explain why</i></li> </ul>	points = 1 al conditions that the points = 0 points = 0	1
<ul> <li>Flooding occurs in a sub-basin that is immediately down-gradient of unit.</li> <li>Surface flooding problems are in a sub-basin farther down-gradient.</li> <li>Flooding from groundwater is an issue in the sub-basin.</li> <li>The existing or potential outflow from the wetland is so constrained by human or natur water stored by the wetland cannot reach areas that flood. <i>Explain why</i></li> <li>There are no problems with flooding downstream of the wetland.</li> </ul>	points = 1 al conditions that the points = 0 points = 0	1

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

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

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

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks	is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft lon		
Standing snags (dbh > 4 in) within the wetland	2,	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plant	s extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (		
Stable steep banks of fine material that might be used by beaver or muskrat f		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that		
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are preser	nt in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibia	ns)	
invasive plants cover less than 25% of the wetland area in every stratum of pl	ants (see H 1.1 for list of	-2
strata)		-
Total for H 1 Add th	e points in the boxes above	4
Rating of Site Potential If score is:15-18 = H7-14 = M0-6 = L	Record the rating on t	he first page
H 2.0. Does the landscape have the potential to support the habitat functions of	the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: / > % undisturbed habitat 40 + [(% moderate and low intensity lat	30 - 30 -	
	d uses / 2 / 2 / 2 =	
If total accessible habitat is:		
> 1/3 (33.3%) of 1 km Polygon	points = 3	
20-33% of 1 km Polygon	(points = 2)	_
10-19% of 1 km Polygon	points = 1	2
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	20 57	
Calculate: 30 % undisturbed habitat 40 + [{% moderate and low intensity la	nd uses)/2] = $-\frac{3}{2}$ %	
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	2
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 1 km Polygon is high intensity	points = 0	~
Total for H 2 Add th	e points in the boxes above	4
Rating of Landscape Potential If score is: 4-6 = H1-3 = M<1 = L	Record the rating on th	e first page
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Cl	noose only the highest score	
that applies to the wetland being rated.	points = 2	
City and the ANIX of the fallenting establish	points - 2	
Site meets ANY of the following criteria:	1	
It has 3 or more priority habitats within 100 m (see next page)	an the state of forderal lints)	
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> </ul>	on the state or federal lists)	
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> <li>It is mapped as a location for an individual WDFW priority species</li> </ul>		
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> <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 Department of</li> </ul>	of Natural Resources	
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> <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 Department</li> <li>It has been categorized as an important habitat site in a local or regional comp</li> </ul>	of Natural Resources	
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> <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 Department of</li> <li>It has been categorized as an important habitat site in a local or regional comp Shoreline Master Plan, or in a watershed plan</li> </ul>	of Natural Resources	
<ul> <li>It has 3 or more priority habitats within 100 m (see next page)</li> <li>It provides habitat for Threatened or Endangered species (any plant or animal</li> <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 Department</li> <li>It has been categorized as an important habitat site in a local or regional comp</li> </ul>	of Natural Resources prehensive plan, in a	

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

#### **WDFW Priority Habitats**

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/bhs/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: <u>Old-growth west of Cascade crest</u> Stands of at least 2 tree species, forming a multilayered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha ) > 32 in (81 cm) dbh or > 200 years of age. <u>Mature forests</u> - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; 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.

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

#### CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetl	and Type	Category
Check	off any criteria that apply to the wetland. Circle the category when the appropriate criteria ore met.	
	). Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? —— The dominant water regime is tidal,	
	- Vegetated, and	
	With a salinity greater than 0.5 ppt Yes -Go to SC 1.1 No (Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat. I
	mowed grassland. The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II	Cat. II
SC 2.1.	b. Wetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Go to SC 2.2 No - Go to SC 2.3 Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV	Cat. 1
SC 2.3.	is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? <u>http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf</u> Yes - Contact WNHP/WDNR and go to SC 2.4 (No = Not a WHC)	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed to on their website? Yes = Category I No = Not a WHCV	
	b. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions.	
	Does an area within the wetland unit have organic soil horizons, either peats or mucks, that <u>compose 16 is or</u> more of the first 32 in of the soil profile? Yes – Go to <b>SC 3.3</b> (No – Go to <b>SC 3.2</b> ) Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 th deep	
50 5.2.	over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake pond? Yes – Go to SC 3.9 No = is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = Is a Category I bog No = Is not a bog	

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

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA	
Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate	
the wetland based on its functions.	
- Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
— Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the	
species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm).	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt)	
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Catli
Yes - Go to SC 5	
SC 5.1. Does the wetland meet all of the following three conditions?	
The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less	Cat. II
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat.II
At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
The wetland is larger than $1/_{10}$ ac (4350 ft ² )	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If	
you answer yes you will still need to rate the wetland based on its habitat functions.	
In practical terms that means the following geographic areas:	
Long Beach Peninsula: Lands west of SR 103	
- Grayland-Westport: Lands west of SR 105	Catl
- Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No = not an interdunal wetland for fating	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M	Cat. II
for the three aspects of function]? Yes = Category   No - Go to SC 6.2	
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
Yes = Category II No – Go to SC 6.3	Cat. III
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?	
Yes = Category III No = Category IV	
	Cat. IV
Category of wetland based on Special Characteristics	15
If you answered No for all types, enter "Not Applicable" on Summary Form	NI

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