N.E. Lockwood Creek Road - North Parcel

WETLAND DELINEATION & ASSESSMENT CRITICAL AREAS REPORT



Prepared for: La Center School District 725 Highland Road La Center, WA 98629

Prepared by:

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September 28, 2018



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WETLAND DELINEATION AND ASSESSMENT

Project: NE Lockwood Creek Road Properties – North Parcel

Applicant: La Center School District

Location: South of NE Lockwood Creek Road, La Center,

Washington

Legal Description: NE ¼ of Sec. 02, T04N, R01E, W. M., Clark County

Serial Number(s): 209064-000 Study Area Size: 1.9 acres

Jurisdiction: City of La Center, WA

Watershed: East Fork of the Lewis River

Zoning: LDR-7.5

ComPlan: UL

Assessment by: Kevin Grosz, PWS; Ryan Thiele

Site Visit(s): September 20, 2018 Report Date: September 28, 2018

1.0 INTRODUCTION

This report details the results of a wetland delineation and assessment conducted by Olson Environmental, LLC (OE) for the La Center School District. The study area is located immediately adjacent and south of NE Lockwood Creek Road on the east edge of La Center, Washington (Fig. 1). This report identifies the extent of any wetlands and associated buffers found within the study area as defined and regulated by the US Army Corps of Engineers (USACE) and the Washington Department of Ecology (Ecology) under sections 401 and 404 of the Clean Water Act, and locally by the City of La Center under the City's Critical Areas Ordinance (18.300.090(6) – Wetlands).

Currently, the 1.9-acre study area is vacant land that appears to be used for domestic livestock grazing and/or hay land. A narrow strip of shrubs interspersed with trees separates the grassland portion of the site from NE Lockwood Creek Road to the north. Generally, the site is gently sloped from north to south (Fig. 2). Photographs of the study area and wetlands are provided in Photo-Sheet 1.

2.0 WETLAND DELINEATION AND ASSESSMENT METHODS

The wetland delineation was conducted according to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (USACE, 2010.) hereafter, referred to as the manual. According to the manual, jurisdictional wetlands are defined as:

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life

in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Prior to the on-site investigations, a review of existing information related to determination of wetland boundaries was conducted. This review included the Clark County LiDAR topographic data (Fig. 2), National Wetland Inventory (NWI) data and Clark County Wetland Inventory (LWI) data (Fig. 3), NRCS Clark County Soil Survey data (Fig. 4), and aerial photographs.

The manual uses three parameters in making wetland determinations: hydrophytic vegetation, hydric soils, and wetland hydrology. Except in certain situations defined in the manual, evidence of a minimum of one positive indicator from each parameter (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.

<u>Hydrophytic vegetation</u> are plants that due to morphological, physiological, and/or reproductive adaptations, have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. Hydrophytic vegetation is present when more than 50 percent of the dominant species have an indicator status of OBL, FACW, and/or FAC. Wetland indicator status ratings and their ordinal rating categories, based on ecological descriptions:

Indicator Status (abbreviation) Ecological Description*

Obligate (OBL) Almost always is a hydrophyte, rarely in uplands

Facultative Wetland (FACW) Usually is a hydrophyte but occasionally found in uplands

Facultative (FAC) Commonly occurs as either a hydrophyte or nonhydrophyte

Facultative Upland (FACU) Occasionally is a hydrophyte, but usually occurs in uplands

Upland (UPL) Rarely is a hydrophyte, almost always in uplands.

*Source: Lichvar and Minkin (2008)

Hydric soils are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. The presence or absence of hydric soils is determined in the field by digging soil pits to a depth of a minimum of 16 inches and examining the soil for hydric soil indicators. Organic soils such as peats and mucks are considered hydric soils. Mineral hydric soils are generally either gleyed or have redox concentrations and/or low matrix chroma immediately below the A-horizon or 10 inches (whichever is shallower). Soil colors are determined using the Munsell Soil Color Chart (Munsell Color System 2009).

Wetland hydrology is present when an area is inundated or saturated to the surface for at least 5 percent of the growing season. The growing season is defined as the portion of the year when soil temperature at 19.7 inches below the soil surface is greater than biological zero (5 degrees C). The site was examined for standing water and/or saturated soils, which serve as primary indicators of wetland hydrology. The area was also checked for

other wetland hydrologic characteristics such as watermarks, wetland drainage patterns, and morphological plant adaptations.

3.0 SITE SPECIFIC METHODS

OE conducted the onsite wetland delineation and assessment on September 20, 2018, using the methodology found in the Regional Supplement to the Manual (USACE 2010). In addition, applicable guidance and any supporting technical guidance documents issued by the USACE, Ecology, and Clark County GIS were also utilized.

The entire site was first traversed by foot to observe any visible wetland conditions. Once the general locations of the wetland boundaries were identified, paired data plots were taken in areas that represented the conditions of the uplands and wetlands, respectively. One (1) and ten (10) meter radius plots were chosen in a uniform topographic position that was representative of a single plant community. The paired plots were located approximately 5 - 10 feet apart to minimize the margin of error. Soils at each sample plot are typically inspected to a depth of 16 inches (or more) to determine the presence or absence of hydric soil characteristics and/or wetland hydrology. Data sheets for the sample plots are attached in Appendix A.

The wetland boundaries were determined based on the presence of hydric soils (i.e. redox concentrations in the soil matrix), the presence of wetland hydrology (i.e. oxidized rhizospheres along living roots, soil saturation), and a dominance of hydrophytic vegetation. It should be noted that only paired plots were recorded in the field, however, numerous unrecorded plots were dug to confirm wetland boundaries. The on-site wetlands were classified according the USFWS classification system (Cowardin et al. 1979) and the Hydrogeomorphic (HGM) classification system (Adamus et al. 2001).

4.0 RESULTS AND DISCUSSION

According to the NWI/LWI wetlands map (Fig. 3), wetlands are not projected or modeled within the project area. It should be noted that these maps are created through aerial photograph and topographic map interpretation and are not intended to represent the extent of jurisdictional wetlands. There may be unmapped wetland and waters subject to regulation and all wetlands and waters boundary mapping is approximate. In all cases, actual field conditions determine the presence, absence and boundaries of wetlands and waters.

Four soil types are mapped on the site (Fig. 4):

Gee Silt Loam, 0 to 8 percent slopes (GeB). Gee soils are deep, moderately well drained soils formed in the old alluvium deposited by the Columbia River. They are moderately permeable in the surface layer and very slow in the subsurface. Surface runoff is slow and the erosion hazard is slight. In a typical profile, these soils are a very dark grayish brown (10YR 3/2) silt loam in the upper 9 inches. Below this to a depth of 14 inches they are a

dark grayish brown (10YR 4/2) silt loam with yellowish brown (10YR 5/6) redox concentrations. It is listed as a **non-hydric** soil.

Gee silt loam, 8 to 20 percent slopes (GeD). This soil is similar to Gee silt loam, 0 to 8 percent slopes, except that the surface layer is 1 to 3 inches thinner. Sidehill seeps are common on these slopes in winter and spring. Surface runoff is medium, and the erosion hazard is moderate. It is listed as a **non-hydric** soil.

Hillsboro silt loam, 8 to 15 percent slopes (HoC). This soil was formed in mixed, silty and loamy old alluvium. It is well drained, has moderate permeability, surface runoff is slow to medium, and the erosion hazard is moderate. In a typical profile, soils are dark brown (10YR 3/3) loam or silt loam to a depth of 15 inches. It is listed as a **non-hydric** soil.

Odne silt loam, 0 to 5 percent slopes (OdB). This soil generally occurs in concave areas in drainageways or depressions within areas of Gee soils. In most places the slope is 1 to 2 percent. In a typical profile, the surface layer is about 10 inches thick. It is mottled, dark-gray heavy silt loam in the upper part. The subsurface layer is firm, mottled, gray silt loam about nine inches thick. The next eight inches is very firm, mottled, dark-gray silty clay loam that overlies six inches of firm, mottled, dark-gray clay loam. This soil is poorly drained and very slowly permeable. A high water-table is common in winter. It is classified as a hydric soil according to the Clark County hydric soils list.

4.1 WETLANDS (FIG. 5)

Three (3) wetlands were identified and delineated within the study area as shown in Figure 5. A description of each of these wetlands are as follows:

Wetland A (1541 sq. ft.)

Wetland A is characterized as a palustrine, emergent wetland and is located in the southwestern portion of the study area along the western property boundary (Fig. 5). It appears this wetland is predominately sustained by runoff from a ditch along the western property boundary. This wetland is classified as a slope HGM class. Table 1 outlines the functional assessment for this wetland.

The vegetation is predominantly colonial bent grass (*Agrostis capillaris* – FAC), reed canary grass (*Phalaris arundinacea* – FACW) and Himalayan blackberry (*Rubus armeniacus* – FAC). Hydric soil indicators included a reduced matrix. Soils from 0 to 12 inches are a very dark grayish brown (10YR 3/2) silt loam with brown (7.5YR 4/4) redox concentrations and turn very dark gray (10YR 3/1) from 12 to 16 inches with similar redox concentrations. Wetland hydrology was indicated by drainage patterns and geomorphic position.

Wetland B (1048 sq. ft.)

Wetland B is characterized as a palustrine, scrub-shrub wetland and is located in the northern portion of the property adjacent to NE Lockwood Creek Road (Fig 5). It appears

that the wetland is predominately sustained by a culvert from the road that drains into the scrub/shrub portion of the study area along the roadside. This wetland is classified as a slope HGM class wetland. Table 1 outlines the functional assessment for this wetland.

Vegetation in Wetland B consists of snowberry (*Symphoricarpos albus* – FACU), Scouler's willow (*Salix scouleriana* – FAC), and meadowsweet (*Spiraea douglasii* – FACW) in the shrub layer. Reed canary grass dominates the herbaceous layer, with Himalayan blackberry interspersed. Hydric Soil indicators included a reduced matrix with. Soils from 0 to 5 inches are a very dark grayish brown (10YR 3/2) silt loam and turn very dark gray (10YR 3/1) from 5 to 16 inches with dark brown (7.5YR 3/4) redox concentrations. Wetland hydrology was indicated by oxidized rhizospheres along living roots, drainage patterns and geomorphic position.

Wetland C (2647 sq. ft.)

Wetland C is characterized as a palustrine, forested/scrub-shrub wetland and is located in the northeastern portion of the property adjacent to NE Lockwood Creek Road (Fig 5). This wetland appears to be predominately sustained by a road culvert that drains into this of the study area and may contain drain tile that is artificially draining this portion of the study area. This wetland is classified as a depressional HGM class wetland. Table 1 outlines the functional assessment for this wetland.

Vegetation in Wetland C is dominated by black cottonwood (*Populus balsamifera* – FAC) and Nootka rose (*Rosa nutkana* – FAC) in the tree and shrub canopies, with soft rush (*Juncus effusus* – FACW) and colonial bent grass in the herbaceous layer. Hydric soil indicators included a reduced matrix. Soils from 0 to 16 inches are a very dark grayish brown (10YR 3/2) clayey silt loam with brown (7.5YR 4/4) redox concentrations. Wetland hydrology was indicated by oxidized rhizospheres along living roots, drainage patterns and geomorphic position.

4.2 WETLAND FUNCTIONAL ASSESSMENT

The delineated wetlands have been assessed using the Washington State Wetland Rating System for Western Washington (Hruby Update 2014). The system was designed to differentiate between wetlands based on their sensitivity to disturbance, their significance, their rarity, our ability to replace them, and the functions they provide. Through a series of questions, the wetland rating system generates a number for water quality functions, hydrologic functions, and habitat function, which creates as overall wetland function score. Based on the total score, the wetland is categorized as a Category I, II, III, or IV wetland. Table 1 below summarizes the wetland type, total score for functions, and category of wetlands identified within the study area.

Table 1. Wetland Function Rating

Wetland	Wetland Type	Water Quality Functions	Hydrologic Functions	Habitat Functions	Total Score	Wetland Category
A	Slope	6	3	5	14	IV
В	Slope	6	3	4	13	IV
С	Slope	6	4	4	14	IV

4.3 NON-WETLANDS

The non-wetland portions in the project area are primarily open grassland that appears to be used primarily as hay land and may also be used to graze domestic livestock. In addition, there are two areas with mixed shrub and tree cover. Vegetation in the grassland area is more than likely a pasture seed mixture that has been sown for the pasture/hay uses. This area consists tall sweet vernal grass (*Anthoxanthum odoratum* – FACU), false rye grass (*Schedonorus arundinaceus* - FAC), colonial bent grass, and spreading bent grass (*A. stolonifera* – FAC), velvet grass (*Holcus lanatus* – FAC). Vegetation in the upland areas to the north along the roadside consists of black cottonwood, cascara (*Frangula pershiana* – FAC), Nootka rose, Himalayan blackberry, trailing blackberry (*R. ursinus* – FACU) and reed canary grass. A shrub patch in the southwest corner is primarily bitter cherry (*Prunus emarginata*) and Nootka rose. No wetland hydrology or soil indicators were observed in these ares of the study site.

5.0 REGULATORY ISSUES

Through the course of the wetland delineation and assessment, three wetlands were identified on the property as shown in Figures 5 and 6. The subsequent wetland buffers are based on the guidelines of LMC 18.300.090(6). This section of the LMC provides for the protection of wetlands within the City's jurisdiction. The ordinance establishes protective buffers associated with wetlands and specifies that certain permits or approvals be obtained for projects containing wetlands or their respective buffers.

As shown in Table 1, Wetland A, Wetland B, and Wetland C are HGM class Category IV wetlands, rated with low habitat scores. According to LMC Table 18.300.090(h)(i)-1, wetlands in a proposed high intensity land use with a low habitat score are protected by a 50-foot buffer (Fig. 6) to maintain hydrologic functions. N.E. Lockwood Creek Road forms the northern portion of the study area. Buffers along the road are functionally isolated since the roadway provides no protection to the wetlands.

In addition, LMC 18.300.090(6), jurisdictional wetlands are also regulated at the federal and state levels by the USACE and Ecology under Sections 404 and 401 of the Clean Water Act, respectively. Any impacts to the wetlands will require notification and approval from the USACE and Ecology. It is recommended that the USACE and Ecology be contacted regarding current permit requirements before proceeding with any development activities that would impact wetlands on this site.

The wetland boundaries and classifications shown in this report have been determined using the most appropriate field techniques and best professional judgment of the environmental scientist. It should be noted that USACE and City of La Center have the final authority in determining the wetland boundaries and categories under their respective jurisdictions. It is recommended that this delineation report be submitted to these agencies for concurrence prior to starting any development or planning activities that would affect wetlands or buffers on this site.

6.0 LITERATURE CITED

Adamus, et al. 2001. <u>Guidebook for Hydrogeomorphic (HGM) Based Assessments of Oregon Wetlands and Riparian Sites.</u> Statewide Classification and Profiles. Oregon State Department of State Lands, Salem, Oregon.

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Department of the Army. 1987. <u>Corps of Engineers Wetlands Delineation Manual.</u> Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Hruby, T. 2014. Washington State Wetland Rating System for Western Washington – 2014 Update. Washington State Department of Ecology Publication # 14-06-29. http://www.ecy.wa.gov/pubs/0406025.pdf

Munsell Color System. 2009. <u>Munsell Soil Color Charts.</u> Produced by x-rite. 4300 44th Street, Grand Rapids, MI 49512.

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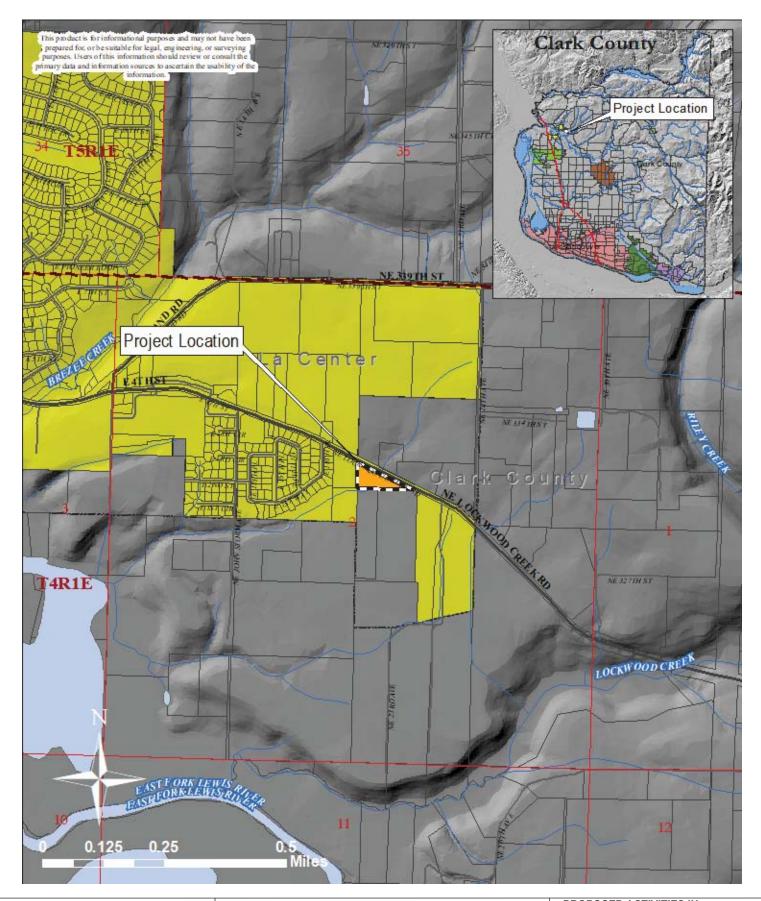
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Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at http://websoilsurvey.nrcs.usda.gov/. Accessed 8/5/2015.

FIGURES

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- FIGURE 2 CLARK COUNTY LIDAR TOPOGRAPHIC MAP
- FIGURE 3 LOCAL & NATIONAL WETLAND INVENTORY MAP
- FIGURE 4 CLARK COUNTY WEB SOIL SURVEY
- FIGURE 5 WETLAND BOUNDARY & SAMPLE PLOTS
- FIGURE 6 WETLAND BOUNDARIES & BUFFERS
- PHOTO-SHEET 1 PROJECT AREA PHOTOGRAPHS



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

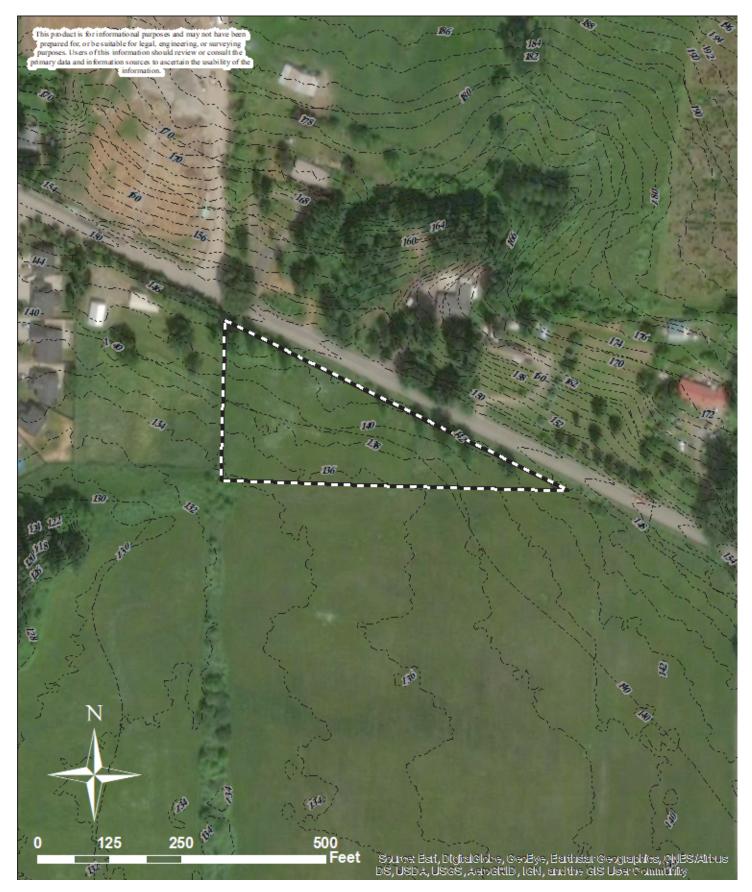
Project Location Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN: Lockwood Creek Watershed

LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington

NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018



APPLICANT: La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Topography Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN: Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

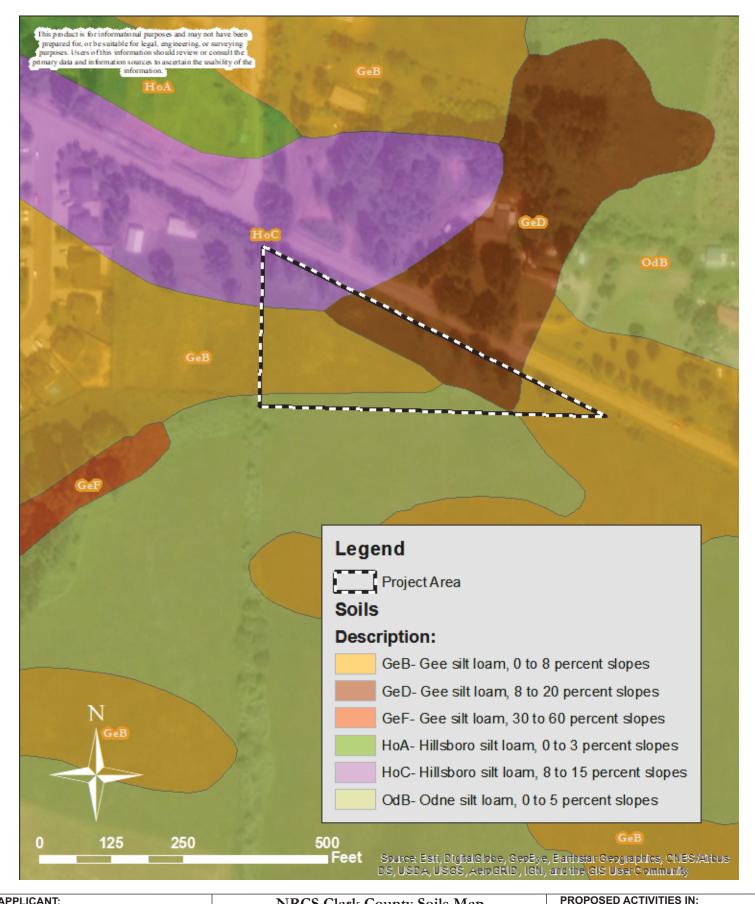
Local and National Wetland Inventories NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington

COUNTY: Clark County
DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation &

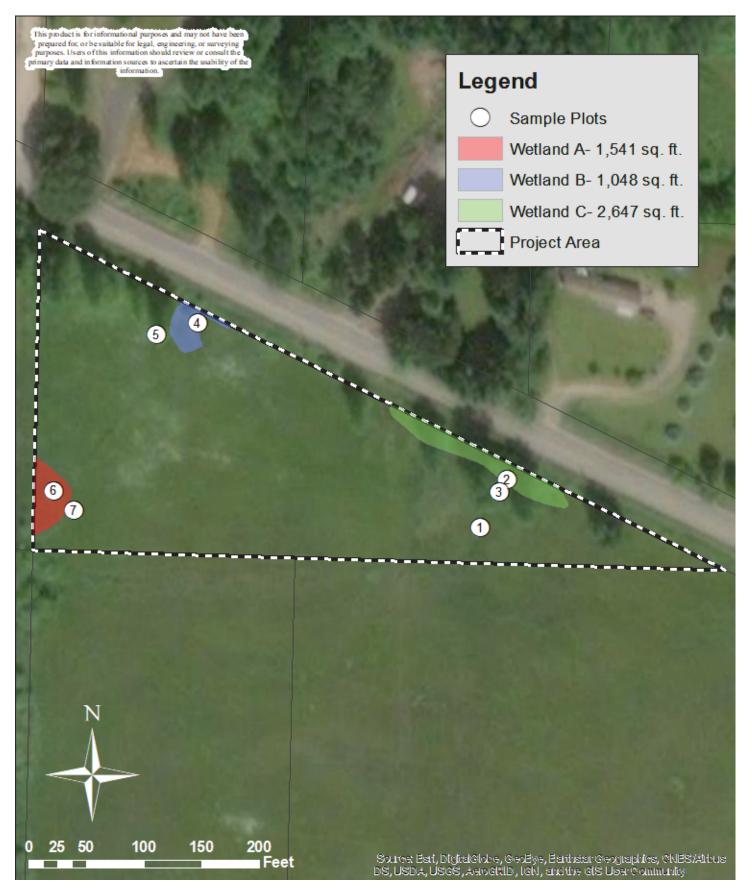
Assessment

NRCS Clark County Soils Map NE Lockwood Creek Road - North Parcel La Center, Washington



Lockwood Creek Watershed **LEGAL:** NE 1/4 of S2, T4N, R1E, W. M. NEAR: La Center, Washington

COUNTY: Clark County DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

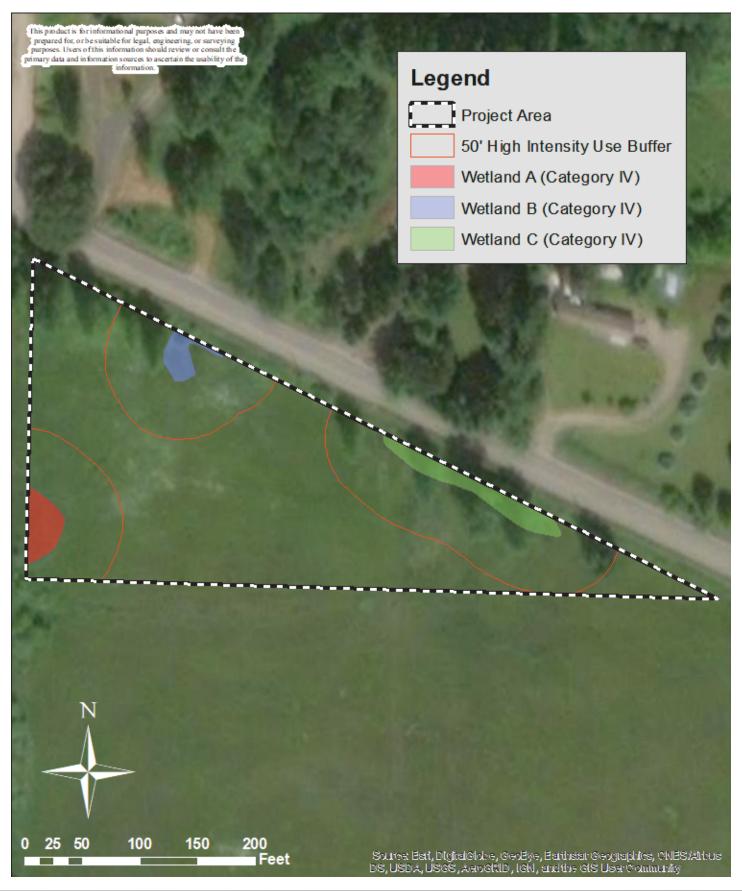
Wetland Boundary and Sample Plots NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington

COUNTY: Clark County
DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Wetland Categories and Buffers NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington

COUNTY: Clark County
DATE: September 26, 2018













APPLICANT: La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Study Area Photographs NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:
Lockwood Creek Watershed
LEGAL: NE ¼ of S2, T4N, R1E, W. M.
NEAR: La Center, Washington
COUNTY: Clark County
DATE: September 26, 2018

Photo-Sheet 1

APPENDIX A

WETLAND DETERMINATION DATA FORMS

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

Project/Site: La Center School District/NE Lockwood Cree Applicant/Owner: La Center School District Investigator(s): Kevin Grosz, Ryan Thiele Landform (hillslope, terrace, etc.): hillslope Subregion (LRR): Northwest Forests & Coast (LRR A) Soil Map Unit Name: Gee silt loam Are climatic/hydrologic conditions on the site typical for Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally pro SUMMARY OF FINDINGS – Attach site map showin Hydrophytic Vegetation Present? Yes Hydric Soil Present? No Wetland Hydrology Present? No Remarks:	Section, Towns elief (concave, con Lat: n: N/A this time of year? disturbed? oblematic?	nvex, none): co 45.86010680 ? Yes(if no, exp	, T4N, R1E ncave Slo Long: -122.6 plain in Remai Are "Normal (if needed, e	cks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 10 meter) 1. 2. 3. 4.	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B)
Total Cover = <u>0</u>				
Sapling/Shrub Stratum (Plot size: 10 meter)				Percent of Dominant Species
1. 2. 3. 4. 5. Total Cover = 0 Herb Stratum (Plot size: 1 meter) 1. Schedonorus arundinaceus 2. Holcus lanatus 3. Anthoxanthum odoratum 4. Agrostis capillaris 5. 6. 7. 8. 9. 10. 11. Total Cover = 95 Woody Vine Stratum (Plot size: 10 meter) 1. 2. Total Cover = 0	60 20 10 5	Yes Yes No No	FAC FACU FAC	That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 85 x 3 = 255 FACU species 10 x 4 = 40 UPL species 0 x 5 = 0 Column Totals: 95 (A) 295 (B) Prevalence Index = B/A = 3.11 Hydrophytic Vegetation Indicators: 1 -Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test >50% 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum: <u>5</u>				Hydrophytic Vegetation Present? Yes
Remarks:				nydrophytic vegetation Present: res

SOIL

Sampling Point: New Point 1 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

	<u>Mat</u>	<u>rix</u>		Redox F	-eatures				
Depth	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
(inches)	10VD 2/2	100		0			Cil+ Loom		
<u>0-16</u>	<u>10YR 3/2</u>	<u>100</u>		<u>0</u>			<u>Silt Loam</u>		
¹Type: C=	Concentration, D	=Depletion,	RM=Reduced Ma	atrix, CS=0	Covered or	r Coated S	and Grains.	Location: Pl	L=Pore Lining, M=Matrix
Hydric So	il Indicators: (Ap	plicable to a	II LRRs, unless ot	herwise r	noted.)			Indicato	rs for Problematic Hydric Soils ³ :
Histos	sol (A1)		Sa	ndy Redo	x (S5)			2 cr	m Muck (A10)
Histic	Epipedon (A2)		Sti	ripped Ma	itrix (S6)			Rec	d Parent Material (TF2)
Black	Histic (A3)		Lo	amy Muc	ky Mineral	l (F1) (exc	ept MLRA 1)	Ve	ry Shallow Dark Surface (TF12)
Hydro	gen Sulfide (A4)		Lo	amy Gley	ed Matrix	(F2)		Oth	ner (Explain in Remarks)
	ted Below Dark S			pleted M					
	Dark Surface (A12				Surface (F	•			tors of hydrophytic vegetation and
	Mucky Mineral (ark Surface				d hydrology must be present, unless ed or problematic.
	Gleyed Matrix (S		Re	dox Depr	essions (F8	3)		distarb	ed of problematic.
	e Layer (if preser	nt):							
Type: Depth (in	chocl: 0							Hydric	Soil Present? <u>No</u>
								,uc	
Remarks:									
HYDROLO									
	Hydrology Indicat dicators (minimu		quired; check all	that apply	/)			Secondary	/ Indicators (two or more required)
Surfac	e Water (A1)		Wa	ter-Staine	ed Leaves ((B9)			-Stained Leaves (B9)(MLRA 1,2,4A,4B)
	Vater Table (A2)				RA 1,2,4A,				age Patterns (B10)
	ition (A3)			t Crust (B1		, , , , , , , , , , , , , , , , , , , ,			eason Water Table (C2)
	· Marks (B1)		· <u></u>		rtebrates (B13)			ation Visible on Aerial Imagery (C9)
	ent Deposits (B2)				lfide Odor				orphic Position (D2)
	Deposits (B3)						ng Roots (C3)	Shallo	w Aquitard (D3)
Algal I	Mat or Crust (B4)		Pre	sence of I	Reduced Ir	on (C4)		FAC-N	eutral Test (D5)
Iron D	eposits (B5)		Rec	ent Iron F	Reduction	in Tilled S	oils (C6)	Raised	d Ant Mounds (D6)(LRR A)
Surfac	e Soil Cracks (B6)		Stu	nted or St	tressed Pla	nts (D1)(L	RR A)	Frost-l	Heave Hummocks (D7)
Inunda	ation Visible on A	erial Imager	y (B7)Oth	ıer (Explai	in in Rema	rks)			
Sparse	ely Vegetated Cor	ncave Surfac	e (B8)						
Field Obse									
	ater Present? No	-	Depth (inc	-					
Water Tak Saturation	ole Present? <u>No</u>		Depth (in	· .					
	n Present? <u>No</u> apillary fringe)	<u>2</u>	Depth (in	ciles).			Wetland Hyd	rology Pres	ent? <u>No</u>
	Recorded Data (st	ream gauge	, monitoring well	, aerial ph	iotos, prev	ious inspe	ections), if availa	ble:	
Damanlını									
Remarks:									

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

Project/Site: La Center School District/NE Lockwood Cree Applicant/Owner: La Center School District Investigator(s): Kevin Grosz Section, Township Landform (hillslope, terrace, etc.): hillslope Subregion (LRR): Northwest Forests & Coast (LRR A) Soil Map Unit Name: Gee silt loam Are climatic/hydrologic conditions on the site typical for the Are Vegetation, Soil, or Hydrology significantly of the Are Vegetation, Soil, or Hydrology naturally prosessing the side of the side	o, Range: <u>02, T4N</u> lief (concave, cor Lat: : <u>N/A</u> his time of year? disturbed?	nvex, none): <u>co</u> 45.86022250 ⁹ Yes(if no, exp	ncave Slo Long: <u>-122.6</u> Dlain in Remal Are "Normal	
SUMMARY OF FINDINGS – Attach site map showin	g sampling poi	nt locations,	transects, ir	nportant features, etc.
Hydrophytic Vegetation Present? Yes				
Hydric Soil Present? <u>Yes</u>		Ic the G	Campled Area	within a Watland? Voc
Wetland Hydrology Present? <u>Yes</u>		is the s	ampieu Area	within a Wetland? <u>Yes</u>
Remarks: VEGETATION – Use scientific names of plants.				
Comment of the commen	Absolute %	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>10 meter</u>)	Cover	Species?	Status	Number of Dominant Species
1. <u>Populus balsamifera</u>	<u>40</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: $\underline{4}$ (A)
2. 3.				Total Number of Dominant
4.				Species Across All Strata: <u>4</u> (B)
Total Cover =40				
Sapling/Shrub Stratum (Plot size: 10 meter)				Percent of Dominant Species
1. Rosa nutkana	20	<u>Yes</u>	FAC	That Are OBL, FACW, or FAC: 100 (A/B)
2. Corylus cornuta	20 2	No.	FACU	Prevalence Index worksheet:
3.	_		· <u></u>	Total % Cover of: Multiply by:
4.				OBL species $\underline{0}$ x 1 = $\underline{0}$
5.				FACW species 35 x 2 = 70 FAC species 90 x 3 = 270
Total Cover = 22 Herb Stratum (Plot size: 1 meter)				FACU species $\frac{30}{19}$ x 4 = $\frac{76}{19}$
1. Juncus effusus	<u>20</u>	<u>Yes</u>	FACW	UPL species $\underline{0}$ x 5 = $\underline{0}$
2. Rubus ursinus	<u>15</u>	No	FACU	Column Totals: <u>144</u> (A) <u>416</u> (B)
3. Phalaris arundinacea	<u>15</u>	<u>No</u>	<u>FACW</u>	Bravalance Index D/A 2.00
4. <u>Schedonorus arundinaceus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	Prevalence Index = B/A = 2.89
5. Anthoxanthum odoratum	5 <u>2</u> 5 20	No No	FACU FAC	Hydrophytic Vegetation Indicators:
6. Phleum pratense 7. Agrostis capillaris	<u>2</u> 20	<u>No</u> Yes	<u>FAC</u> FAC	1 –Rapid Test for Hydrophytic Vegetation
8.	<u> </u>	100	1710	X 2 – Dominance Test >50%
9.				$\frac{X}{A}$ 3 - Prevalence Index is ≤ 3.0 ¹
10.				4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet)
11.				5 – Wetland Non-Vascular Plants¹
Total Cover = <u>82</u>				Problematic Hydrophytic Vegetation¹ (Explain)
				1
Woody Vine Stratum (Plot size: 1 meter)				¹Indicators of hydric soil and wetland hydrology
1. 2.				must be present, unless disturbed or problematic.
Total Cover =0				
_				
% Bare Ground in Herb Stratum: <u>18</u>				Hydrophytic Vegetation Present? Yes
Remarks:		·		

SOIL

Sampling Point: New Point 2 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Color (moist) Color (moist) Type¹ Loc^2 Remarks Depth Texture (inches) 10YR 3/2 80 7.5YR 4/4 M Clayey Silt Loam 0-16 20 C ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils³: Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) Histic Epipedon (A2) Red Parent Material (TF2) Stripped Matrix (S6) Black Histic (A3) _Loamy Mucky Mineral (F1) (except MLRA 1) _Very Shallow Dark Surface (TF12) ____Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Matrix (F3) __Thick Dark Surface (A12) X Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless ___Sandy Mucky Mineral (S1) ____Depleted Dark Surface (F7) disturbed or problematic. Sandy Gleyed Matrix (S4) Redox Depressions (F8) Restrictive Layer (if present): Type: Hydric Soil Present? Yes Depth (inches): 0 Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (two or more required) Surface Water (A1) _Water-Stained Leaves (B9) Water-Stained Leaves (B9)(MLRA 1,2,4A,4B) (except MLRA 1,2,4A, and 4B) __High Water Table (A2) X Drainage Patterns (B10) Salt Crust (B11) Dry-Season Water Table (C2) Saturation (A3) Water Marks (B1) _Aquatic Invertebrates (B13) ___Saturation Visible on Aerial Imagery (C9) __Sediment Deposits (B2) ____Hydrogen Sulfide Odor (C1) X Geomorphic Position (D2) __Drift Deposits (B3) X Oxidized Rhizospheres along Living Roots (C3) ___Shallow Aquitard (D3) __Algal Mat or Crust (B4) Presence of Reduced Iron (C4) _FAC-Neutral Test (D5) Iron Deposits (B5) _Recent Iron Reduction in Tilled 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 (B7) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) **Field Observations:** Surface Water Present? No Depth (inches): Water Table Present? Depth (inches): No Saturation Present? Depth (inches): No Wetland Hydrology Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

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

Project/Site: La Center School District/NE Lockwood Cr Applicant/Owner: La Center School District Investigator(s): Kevin Grosz, Ryan Thiele Landform (hillslope, terrace, etc.): hillslope Local Subregion (LRR): Northwest Forests & Coast (LRR A) Soil Map Unit Name: Gee silt loam Are climatic/hydrologic conditions on the site typical for Are Vegetation, Soil, or Hydrology significant. Are Vegetation, Soil, or Hydrology naturally p SUMMARY OF FINDINGS - Attach site map show Hydrophytic Vegetation Present? No Hydric Soil Present? No Wetland Hydrology Present? No Remarks:	Section, Towns relief (concave, cor Lat: on: N/A r this time of year? y disturbed? roblematic?	nvex, none): <u>cc</u> 45.86019240 Yes (if no, exp	2, T4N, R1E oncave Slo Long: -122.6 plain in Remai Are "Normal (if needed, e	rks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 10 meter) 1. 2. 3. 4. Total Cover = 0 Sapling/Shrub Stratum (Plot size: 10 meter) 1. 2. 3. 4. Total Cover = 0 Herb Stratum (Plot size: 1 meter) 1. Anthoxanthum odoratum 2. Agrostis capillaris 3. Schedonorus arundinaceus 5. Holcus lanatus	Absolute % Cover 20 20 15 10	Yes Yes Yes No	FACU FAC FAC FAC FAC FAC FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 45 x 3 = 135 FACU species 45 x 3 = 140 UPL species 0 x 5 = 0 Column Totals: 80 (A) 275 (B) Prevalence Index = B/A = 3.44
6. 7. 8. 9. 10. 11. Total Cover = 65	<u>10</u>	140	1AC	Hydrophytic Vegetation Indicators: 1 — Rapid Test for Hydrophytic Vegetation2 — Dominance Test > 50%3 - Prevalence Index is ≤ 3.0¹4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet)5 — Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology
1. <u>Rubus ursinus</u> 2. Total Cover = <u>15</u> % Bare Ground in Herb Stratum: <u>35</u> Remarks:	<u>15</u>	<u>Yes</u>	<u>FACU</u>	must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? No
1. <u>Rubus ursinus</u> 2. Total Cover = <u>15</u> % Bare Ground in Herb Stratum: <u>35</u>	<u>15</u>	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problemat

SOIL Sampling Point: 3

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

Depth (inches)		<u>rix</u>		ricaox i	eatures				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0.16	10VP 2/2	0		0			C:It I as as		
<u>0-16</u>	10YR 3/2	<u>0</u>		<u>0</u>			<u>Silt Loam</u>		
¹Type: C=0	Concentration, D	=Depletior	n, RM=Reduced Ma	atrix, CS=0	Covered o	r Coated S	and Grains.	² Location: P	L=Pore Lining, M=Matrix
Hydric Soi	l Indicators: (App	plicable to	all LRRs, unless ot	therwise r	oted.)			Indicato	ors for Problematic Hydric Soils ³ :
Histos		•		ndy Redo					m Muck (A10)
· · · · · · · · · · · · · · · · · · ·	Epipedon (A2)			ripped Ma					d Parent Material (TF2)
	Histic (A3)					l (F1) (exc	ept MLRA 1)		ry Shallow Dark Surface (TF12)
<u> </u>	gen Sulfide (A4)			amy Gleye	•		•		ner (Explain in Remarks)
	ed Below Dark S	urface (A1		epleted M					
Thick [Dark Surface (A12	2)	Re	dox Dark	Surface (F	6)		³ Indica	tors of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)	De	epleted Da	rk Surface	e (F7)			d hydrology must be present, unless
Sandy	Gleyed Matrix (S	54)	Re	edox Depre	essions (F	3)		disturb	ed or problematic.
Restrictive	Layer (if presen	nt):							
Type:									
Depth (inc	hes): <u>0</u>							Hydric	Soil Present? No
Remarks:									
	cv								
		ors							
Wetland H	lydrology Indicat		equired; check all	that apply	·)			Secondar	y Indicators (two or more required)
Wetland H Primary Inc	lydrology Indicat					(B9)		1	
Wetland H Primary Inc	lydrology Indicat dicators (minimu e Water (A1)		Wa	iter-Staine	d Leaves			Wate	r-Stained Leaves (B9)(MLRA 1,2,4A,4B)
Wetland H Primary IncSurfaceHigh W	lydrology Indicat dicators (minimu e Water (A1) /ater Table (A2)		Wa	nter-Staine	d Leaves			Wate	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10)
Wetland H Primary Ind Surface High W Saturat	lydrology Indicat dicators (minimu e Water (A1)		Wa (e Sali	iter-Staine	d Leaves RA 1,2,4A,	and 4B)		Wate	r-Stained Leaves (B9)(MLRA 1,2,4A,4B)
Wetland H Primary Ind Surface High W Saturat Water	ydrology Indicat dicators (minimu e Water (A1) /ater Table (A2) tion (A3)	m of one r	Wa (e Sali Aqu	ater-Staine except MLI t Crust (B1	d Leaves (RA 1,2,4A)	and 4B)		Wate Draina Dry-Se Satura	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2)
Wetland H Primary Ind Surface High W Saturat Water Sedime	lydrology Indicat dicators (minimu e Water (A1) /ater Table (A2) tion (A3) Marks (B1)	m of one r	Wa (e Sal: Aqı Hyo	ater-Staine except MLI t Crust (B1 uatic Inver	d Leaves RA 1,2,4A, .1) rtebrates (B13) (C1)	ng Roots (C3)	WaterDrainsDry-SoSaturaGeom	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9)
Wetland H Primary Ind Surface High W Saturat Water Sedime	ydrology Indicat dicators (minimu e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2)	m of one r	Wa (e Sal Aqu Hyo Oxi	ater-Staine except MLI t Crust (B1 uatic Inver	d Leaves RA 1,2,4A, 1) tebrates (lfide Odor cospheres	and 4B) (B13) (C1) along Livi	ng Roots (C3)	WaterDrain:Dry-SrSaturaGeom	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) corphic Position (D2)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De	ydrology Indicat dicators (minimu e Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	m of one r	Wa 	nter-Staine Except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz	d Leaves (RA 1,2,4A,1) (tebrates (lifide Odor cospheres Reduced In	B13) (C1) along Livi		WaterDrainaDry-SoSaturaGeomShallo	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ow Aquitard (D3)
Wetland H Primary Ind Surface High W Satural Water Sedime Drift De Algal N Iron De	ydrology Indicated dicators (minimule Water (A1) / Ater Table (A2) tion (A3) / Marks (B1) ent Deposits (B2) eposits (B3) / Mat or Crust (B4)	m of one r	Wa (e Sali Aqi Hyo Oxi Pre Rec	except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In	B13) (C1) along Livi on (C4) in Tilled S	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) corphic Position (D2) aw Aquitard (D3) leutral Test (D5)
Wetland H Primary Ind Surface High W Satural Water Sedime Drift De Algal M Iron De	ydrology Indicated dicators (minimule Water (A1) / Ater Table (A2) tion (A3) / Marks (B1) ent Deposits (B2) eposits (B3) / Aat or Crust (B4) eposits (B5)	m of one r	Wa (e Salt Hyo Oxi Pre Rec Stu	except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De Algal M Iron De Surface	ydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6)	m of one r	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De Algal M Iron De Surface Inunda Sparse	ydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Convations:	m of one r erial Image ncave Surfa	Wa	except MLI t Crust (B1 uatic Inversional drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A)
Wetland H Primary Ind Surface High W Satural Water Sedime Drift De Algal N Iron De Surface Inunda Sparse Field Obse Surface Wa	ydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Convertions: ater Present? No	m of one r erial Image ncave Surfa	Wa	except MLI t Crust (B1 uatic Inversible drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A)
Wetland H Primary Ind Surface High W Satural Water Sedime Drift De Algal N Iron De Surface Inunda Sparse Field Obse Surface Water Table	ydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Convations: ater Present? No	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-ScSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A)
Surface High W Saturat Water Sedime Drift De Algal M Iron De Surface Inunda Sparse Field Obse Surface Water Tabl Saturation	ydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) //at or Crust (B4) eposits (B5) e Soil Cracks (B6) ation Visible on Ally Vegetated Convations: ater Present? No	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, 1) rtebrates (Ifide Odor cospheres Reduced In Reduction ressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SoSaturaGeomShalloFAC-NRaiseeFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De Algal N Iron De Surface Inunda Sparse Field Obse Surface Water Tab Saturation (includes ca	lydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Contractions: ater Present? Notes Present? Notes pillary fringe)	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, .1) rtebrates (lfide Odor cospheres Reduced In Reduction ressed Pla n in Rema	B13) (C1) along Livi ron (C4) in Tilled S ants (D1)(I	oils (C6) LRR A) Wetland Hyd	Wate Draina Satura Geom Shallo FAC-N Raised Frost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De Algal N Iron De Surface Inunda Sparse Field Obse Surface Water Tab Saturation (includes ca	lydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Contractions: ater Present? Notes Present? Notes pillary fringe)	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, .1) rtebrates (lfide Odor cospheres Reduced In Reduction ressed Pla n in Rema	B13) (C1) along Livi ron (C4) in Tilled S ants (D1)(I	oils (C6) LRR A) Wetland Hyd	Wate Draina Satura Geom Shallo FAC-N Raised Frost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)
Wetland H Primary Ind Surface High W Saturat Water Sedime Iron De Surface Inunda Sparse Field Obse Surface Water Table Saturation (includes cap Describe Re	lydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Contractions: ater Present? Note Present? Note pillary fringe)	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, .1) rtebrates (lfide Odor cospheres Reduced In Reduction ressed Pla n in Rema	B13) (C1) along Livi ron (C4) in Tilled S ants (D1)(I	oils (C6) LRR A) Wetland Hyd	Wate Draina Satura Geom Shallo FAC-N Raised Frost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)
Wetland H Primary Ind Surface High W Saturat Water Sedime Drift De Algal N Iron De Surface Inunda Sparse Field Obse Surface Water Tab Saturation (includes cap	lydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Contractions: ater Present? Note Present? Note pillary fringe)	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, .1) rtebrates (lfide Odor cospheres Reduced In Reduction ressed Pla n in Rema	B13) (C1) along Livi ron (C4) in Tilled S ants (D1)(I	oils (C6) LRR A) Wetland Hyd	Wate Draina Satura Geom Shallo FAC-N Raised Frost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)
Wetland H Primary Ind Surface High W Saturat Water Sedime Iron De Surface Inunda Sparse Field Obse Surface Water Table Saturation (includes cap Describe Re	lydrology Indicated dicators (minimule Water (A1) /ater Table (A2) tion (A3) Marks (B1) ent Deposits (B2) eposits (B3) /at or Crust (B4) eposits (B5) e Soil Cracks (B6) tion Visible on Ally Vegetated Contractions: ater Present? Note Present? Note pillary fringe)	erial Image ncave Surfa	Wa	ater-Staine except MLI t Crust (B1 uatic Inver drogen Su idized Rhiz esence of F cent Iron F inted or St ner (Explai	d Leaves RA 1,2,4A, .1) rtebrates (lfide Odor cospheres Reduced In Reduction ressed Pla n in Rema	B13) (C1) along Livi ron (C4) in Tilled S ants (D1)(I	oils (C6) LRR A) Wetland Hyd	Wate Draina Satura Geom Shallo FAC-N Raised Frost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) eason Water Table (C2) ation Visible on Aerial Imagery (C9) eorphic Position (D2) ew Aquitard (D3) deutral Test (D5) d Ant Mounds (D6)(LRR A) Heave Hummocks (D7)

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

Subregion (LRR): Northwest Forests & Coast (LRR A) Soil Map Unit Name: Hillsboro silt loam NWI cl Are climatic/hydrologic conditions on the site typical for Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally pr SUMMARY OF FINDINGS – Attach site map showi	Section, Towns elief (concave, con Lat: assification: N/A this time of years disturbed?	nvex, none): <u>cc</u> 45.86057640 ? <u>Yes</u> (if no, exp	2, T4N, R1E oncave Slo Long: <u>-122.6</u> plain in Rema Are "Normal (if needed, e	rks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
Hydrophytic Vegetation Present? <u>Yes</u> Hydric Soil Present? <u>Yes</u>				
Wetland Hydrology Present? Yes		Is the S	Sampled Area	within a Wetland? Yes
Remarks:				
VEGETATION – Use scientific names of plants.		1 .	T	
Tree Stratum (Plot size: 10 meter) 1. 2.	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)
3. 4. Total Cover =0				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
Sapling/Shrub Stratum (Plot size: 10 meter)				Percent of Dominant Species
1. Symphoricarpos albus	10	Yes	FACU	That Are OBL, FACW, or FAC: <u>80</u> (A/B)
2. Salix scouleriana	<u>10</u> <u>5</u> <u>5</u>	Yes	FAC	Prevalence Index worksheet:
3. <u>Spiraea douglasii</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	Total % Cover of: Multiply by:
4.				OBL species $\underline{0}$ \times 1 = $\underline{0}$ FACW species $\underline{90}$ \times 2 = $\underline{180}$
5.				FAC species $\frac{25}{25}$ x 3 = $\frac{75}{25}$
Total Cover = <u>20</u> Herb Stratum (Plot size: <u>1 meter</u>)				FACU species $\frac{10}{10}$ x 4 = $\frac{40}{10}$
1. Phalaris arundinacea	<u>75</u>	<u>Yes</u>	FACW	UPL species $\underline{0}$ x 5 = $\underline{0}$
2. Juncus effusus	<u>10</u>	No	FACW	Column Totals: <u>125</u> (A) <u>295</u> (B)
3. <u>Schedonorus arundinaceus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	Prevalence Index = B/A = 2.36
4.				
5. 6.				Hydrophytic Vegetation Indicators:
7.				1 –Rapid Test for Hydrophytic Vegetation
8.				X 2 – Dominance Test >50%
9.				X 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptions¹ (Provide supporting
10.				data in Remarks or on a separate sheet)
11. Total Cover = <u>90</u>				5 – Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 1 meter) 1. Rubus armeniacus	<u>15</u>	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Total Cover = <u>15</u>				
% Bare Ground in Herb Stratum: <u>10</u>				Hydrophytic Vegetation Present? Yes
Remarks:	•	•	•	

SOIL Sampling Point: 4

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

	Mat	<u>rix</u>		Redox F	<u>eatures</u>				
Depth	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
(inches)									
<u>0-5</u>	10YR 3/2	100		<u>0</u>			Silt Loam		
<u>5-16</u>	10YR 3/1	<u>85</u>	7.5YR 3/4	<u>15</u>	<u>c</u>	<u>M</u>	Clayey Silt Loam		
 						_			
1- 0						0	10 1 3		
¹Type: C=	-Concentration, D	=Depletior	, RM=Reduced Ma	atrix, CS=0	Covered or	r Coated S	and Grains. ² Lo	cation: P	L=Pore Lining, M=Matrix
Hydric So	il Indicators: (Ap	plicable to	all LRRs, unless ot	herwise r	noted.)			Indicato	rs for Problematic Hydric Soils ³ :
Histos	sol (A1)		Sa	ndy Redo	x (S5)			2 cr	m Muck (A10)
	Epipedon (A2)			ripped Ma					d Parent Material (TF2)
	Histic (A3)			• •		l (F1) (exce	ept MLRA 1)	·	ry Shallow Dark Surface (TF12)
	ogen Sulfide (A4)		· · · · · · · · · · · · · · · · · · ·	-	ed Matrix				ner (Explain in Remarks)
	eted Below Dark S	urface (A1		pleted M		(12)			ici (Explain in Nemarks)
	Dark Surface (A1:	•		•	Surface (F	·6)		3Indicat	tors of hydrophytic vegetation and
	•	-	· · · · · · · · · · · · · · · · · · ·						d hydrology must be present, unless
	/ Mucky Mineral (ark Surface				ed or problematic.
	Gleyed Matrix (S		ĸe	dox Depr	essions (F8	3)			
	e Layer (if preser	nt):							
Type:								Usednie	Sail Dragant? Voc
Depth (in	ches): <u>0</u>							nyuric	Soil Present? Yes
Remarks:									
	.614								
HYDROLO									
	Hydrology Indicat		equired; check all	that annly	٨			Socondan	/ Indicators (two or more required)
		in or one i	-			(50)			
·	ce Water (A1)				ed Leaves (,	-		r-Stained Leaves (B9)(MLRA 1,2,4A,4B)
— ·	Water Table (A2)		•	•	RA 1,2,4A,	and 4B)	-		ge Patterns (B10)
	ation (A3)			t Crust (B2	•		=		eason Water Table (C2)
Water	r Marks (B1)		Aqı	uatic Inve	rtebrates (B13)	-	Satura	tion Visible on Aerial Imagery (C9)
Sedim	ent Deposits (B2))	Нус	drogen Su	lfide Odor	(C1)	_	X_Geomo	orphic Position (D2)
Drift [Deposits (B3)		<u>X</u> Ox	dized Rhi	zospheres	along Livi	ng Roots (C3)	Shallo	w Aquitard (D3)
Algal I	Mat or Crust (B4)		Pre	sence of I	Reduced Ir	on (C4)	-	FAC-N	eutral Test (D5)
Iron D	eposits (B5)		Rec	ent Iron F	Reduction	in Tilled S	oils (C6)	Raisec	Ant Mounds (D6)(LRR A)
Surfac	ce Soil Cracks (B6)		Stu	nted or St	tressed Pla	nts (D1)(L	.RR A)	Frost-	Heave Hummocks (D7)
Inund	ation Visible on A	erial Image	ery (B7)Oth	ner (Explai	in in Rema	rks)			
Sparse	ely Vegetated Cor	ncave Surfa	ce (B8)						
Field Obse							1		
	/ater Present? No)	Depth (inc	ches):					
Water Tak	ole Present? No	<u> </u>	Depth (in	-					
Saturation	n Present? <u>No</u>	<u>)</u>	Depth (in	ches):					
	apillary fringe)						Wetland Hydro		ent? Yes
Describe F	Recorded Data (st	ream gaug	e, monitoring well	, aerial ph	notos, prev	ious inspe	ections), if available	2:	
Domarie									
Remarks:									

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

Lat: classification: N/A or this time of year? dy disturbed? oroblematic?	nvex, none): <u>not</u> 45.86019240 Present in the pres	one Slo Long: -122.6 Dlain in Remal Are "Normal (if needed, e	rks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species
			That Are OBL, FACW, or FAC: $\underline{100}$ (A/B)Prevalence Index worksheet:Total % Cover of:Multiply by:OBL species $\underline{0}$ \underline{x} 1 = $\underline{0}$ FACW species $\underline{0}$ \underline{x} 2 = $\underline{0}$ FAC species $\underline{55}$ \underline{x} 3 = $\underline{165}$
25 20 20 10	Yes Yes Yes No	FAC FAC FACU FAC	FACU species 20 x 4 = 80 UPL species 0 x 5 = 0 Column Totals: 75 (A) 275 (B) Prevalence Index = B/A = 3.26 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test >50% 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain)
			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes
	relief (concave, conclast: classification: N/A or this time of year? dy disturbed? or oblematic? ing sampling poi Absolute % Cover 25 20 20	Absolute % Dominant Cover Species? Absolute % Species? Absolute % Species? Absolute % Species? Absolute % Species?	relief (concave, convex, none): none

SOIL Sampling Point: 5

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

	<u>Mat</u>	<u>rix</u>		Redox i	eatures				
Depth	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
(inches)									
<u>0-16</u>	<u>10YR 3/2</u>	<u>0</u>		<u>0</u>			Silt Loam		
¹Type: C=	=Concentration, D	=Depletior	n, RM=Reduced Ma	atrix, CS=0	Covered o	r Coated S	and Grains.	² Location: Pl	L=Pore Lining, M=Matrix
Hydric So	oil Indicators: (Ap	plicable to	all LRRs, unless ot	herwise r	noted.)			Indicato	rs for Problematic Hydric Soils ³ :
Histo	sol (A1)		Sa	ndy Redo	x (S5)			2 cr	m Muck (A10)
· · ·	Epipedon (A2)			ipped Ma					l Parent Material (TF2)
	Histic (A3)					l (F1) (exc	ept MLRA 1)		ry Shallow Dark Surface (TF12)
	ogen Sulfide (A4)		· · · · · · · · · · · · · · · · · · ·	-	ed Matrix		CPt 10121012)		er (Explain in Remarks)
	eted Below Dark S	urface (A1		pleted M		(12)			er (Explain in Nemarks)
	Dark Surface (A12	•	-		Surface (F	6)		3Indicat	ors of hydrophytic vegetation and
	y Mucky Mineral (-			ark Surface	•			d hydrology must be present, unless
	y Gleyed Matrix (S				essions (F				ed or problematic.
				иох Берг		· · · · · · · · · · · · · · · · · · ·			•
Type:	e Layer (if preser	it):							
Depth (in	rhes). 0							Hvdric	Soil Present? No
	· -							,	<u></u>
Remarks:									
HYDROLO	OGY								
	OGY Hydrology Indicat	tors:							
Wetland I	Hydrology Indicat		equired; check all	that apply	/)			Secondary	r Indicators (two or more required)
Wetland I Primary Ir	Hydrology Indicat ndicators (minimu					(B9)			
Wetland I Primary Ir Surfac	Hydrology Indicated indicators (minimuse Water (A1)		Wa	ter-Staine	ed Leaves	. ,		Water	-Stained Leaves (B9)(MLRA 1,2,4A,4B)
Wetland I Primary IrSurfacHigh \	Hydrology Indicat ndicators (minimu ce Water (A1) Water Table (A2)		Wa	ter-Staine	ed Leaves RA 1,2,4A	. ,		Water	-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10)
Wetland I Primary IrSurfacHigh \Satura	Hydrology Indicated indicators (minimusee Water (A1) Water Table (A2) ation (A3)		Wa (e Salt	ter-Staine xcept ML : Crust (B2	ed Leaves RA 1,2,4A,	and 4B)		Water	-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) asson Water Table (C2)
Wetland I Primary Ir Surfac High \SaturaWater	Hydrology Indicated indicators (minimusce Water (A1) Water Table (A2) ation (A3) r Marks (B1)	im of one r	Wa (e Salt Aqu	ter-Staine xcept ML : Crust (B2 uatic Inve	ed Leaves RA 1,2,4A, 11) rtebrates (and 4B)		Water Draina Dry-Se Satura	-Stained Leaves (B9)(MLRA 1,2,4A,4B) age Patterns (B10) asson Water Table (C2) tion Visible on Aerial Imagery (C9)
Wetland I Primary Ir Surfac High \ Satura Water Sedim	Hydrology Indicated andicators (minimuse Water (A1)) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2)	im of one r	Wa (e Salt Aqu Hyd	ter-Staine xcept ML : Crust (B: uatic Invel drogen Su	ed Leaves RA 1,2,4A, L1) rtebrates ((C1)	ng Roots (C3)	WaterDrainaDry-SeSaturaGeom	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Visible on Aerial Imagery (C9) rephic Position (D2)
Primary Ir Surface High V Satura Water Sedim Drift I	Hydrology Indicated indicators (minimuse Water (A1) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3)	im of one r	Wa (e Salt Aqu Hyo Oxi	ter-Staine xcept ML : Crust (B2 uatic Invel drogen Su dized Rhiz	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres	(B13) (C1) along Livi	ng Roots (C3)	WaterDrainaDry-SeSaturaGeomShallo	-Stained Leaves (B9)(MLRA 1,2,4A,4B) uge Patterns (B10) eason Water Table (C2) ution Visible on Aerial Imagery (C9) orphic Position (D2) w Aquitard (D3)
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I	Hydrology Indicated andicators (minimuse Water (A1)) Water Table (A2) ation (A3) r Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4)	im of one r	Wa Sali Aqu Hyo Oxi Pre	ter-Staine xcept ML : Crust (B2 uatic Invertingen Sudized Rhizes sence of I	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced Ir	B13) (C1) along Livi		Water Draina Dry-Se Satura Geom Shallo	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) rephic Position (D2) w Aquitard (D3) reutral Test (D5)
Wetland I Primary Ir Surfac High \ Satura Water Sedim Drift I Algal I	Hydrology Indicated andicators (minimulated Water (A1)) Water Table (A2) ation (A3) or Marks (B1) ment Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5)	m of one r	Wa (e Salt Aqu Hyo Oxi Pre Rec	ter-Staine xcept ML : Crust (B: uatic Inver- drogen Su dized Rhizes sence of I	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced II	and 4B) (B13) (C1) along Livi on (C4) in Tilled S	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High V Satura Watel Sedim Drift I Algal I Surfac	Hydrology Indicated andicators (minimuse Water (A1)) Water Table (A2) ation (A3) or Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6)	m of one r	Wa (e Salt Aqu Hyo Oxi Pre Reo Stu	ter-Staine xcept ML Crust (B: uatic Inver- drogen Su dized Rhiz sence of I ent Iron I	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) rephic Position (D2) w Aquitard (D3) reutral Test (D5)
Wetland I Primary Ir Surfac High \ Satura Water Sedim Drift I Algal I Iron D Surfac Inund	Hydrology Indicated andicators (minimus ce Water (A1)) Water Table (A2) ation (A3) r Marks (B1) nent Deposits (B2) Deposits (B3) Mat or Crust (B4) Deposits (B5) ce Soil Cracks (B6) lation Visible on A	erial Image	Wa	ter-Staine xcept ML Crust (B: uatic Inver- drogen Su dized Rhiz sence of I ent Iron I	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced II	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High I Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse	Hydrology Indicated andicators (minimused Water (A1)) Water Table (A2) action (A3) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B5) In Seposits (B5) In Seposits (B6)	erial Image	Wa	ter-Staine xcept ML Crust (B: uatic Inver- drogen Su dized Rhiz sence of I ent Iron I	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High I Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Field Obse	Hydrology Indicate andicators (minimulate Water (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B5) In Soil Cracks (B6) In Station Visible on A lely Vegetated Core	erial Image	Wa	ter-Staine xcept ML : Crust (B2 uatic Inver- drogen Su dized Rhiz sence of I sent Iron I nted or Stater (Explain	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Surface W	Hydrology Indicated andicators (minimulated Water (A1)) Water Table (A2) ation (A3) or Marks (B1) Deposits (B3) Mat or Crust (B4) Deposits (B5) De Soil Cracks (B6) lation Visible on A lely Vegetated Corevations: Vater Present? No	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inver- drogen Su dized Rhiz sence of I sent Iron I nted or Stater (Explainance):	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Field Obse Surface W Water Tal	Hydrology Indicate andicators (minimulate Water (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Marks (B3) Mat or Crust (B4) Deposits (B5) In Soil Cracks (B6) In Station Visible on A lely Vegetated Core	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inver- drogen Su dized Rhizes sence of I rent Iron I nted or Stater (Explain ches):	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisec	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Wisible on Aerial Imagery (C9) reprise Position (D2) reason Water Table (D3) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C2) reason Water Table (C3) reason Water Table (C2) reason Water Table (C3) reason Water Table (C4) reason Water Table (C4) reason Water Table (C5) reason (C4) reason Water Table (C5) reason Water Table (C5) reason Water Table (C5) reason (C4) reason (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Field Obse Surface W Water Tal Saturation	Hydrology Indicated andicators (minimus ce Water (A1)) Water Table (A2) ation (A3) or Marks (B1) Deposits (B3) Mat or Crust (B4) Deposits (B5) Ce Soil Cracks (B6) lation Visible on A cely Vegetated Corervations: Vater Present? No	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inver- drogen Su dized Rhizes sence of I rent Iron I nted or Stater (Explain ches):	ed Leaves RA 1,2,4A, L1) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla	B13) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6)	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Surface W Water Tal Saturation (includes care	Hydrology Indicated andicators (minimused Water (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Mat or Crust (B4) Deposits (B3) Mat or Crust (B4) Deposits (B5) It Sould Cracks (B6)	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inversion of Inv	ed Leaves RA 1,2,4A, 11) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla in in Rema	and 4B) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6) .RR A) Wetland Hyd	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Surface W Water Tal Saturation (includes care	Hydrology Indicated andicators (minimused Water (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Mat or Crust (B4) Deposits (B3) Mat or Crust (B4) Deposits (B5) In Mat or Crust (B6) In Mat or Crust (B4)	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inversion of Inv	ed Leaves RA 1,2,4A, 11) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla in in Rema	and 4B) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6) .RR A) Wetland Hyd	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (
Wetland I Primary Ir Surface Water Sedim Drift I Algal I Iron D Surface Inund Sparse Field Obse Surface W Water Tal Saturation (includes ca	Hydrology Indicated andicators (minimulated Mater (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Mathor Crust (B4) Deposits (B3) Mathor Crust (B4) Deposits (B5) Ice Soil Cracks (B6) Iation Visible on A lely Vegetated Corevations: Vater Present? Note the Present? Note in Present? Note apillary fringe) Recorded Data (st	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inversion of Inv	ed Leaves RA 1,2,4A, 11) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla in in Rema	and 4B) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6) .RR A) Wetland Hyd	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (
Wetland I Primary Ir Surfac High V Satura Water Sedim Drift I Algal I Iron D Surfac Inund Sparse Surface W Water Tal Saturation (includes care	Hydrology Indicated andicators (minimulated Mater (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Mathor Crust (B4) Deposits (B3) Mathor Crust (B4) Deposits (B5) Ice Soil Cracks (B6) Iation Visible on A lely Vegetated Corevations: Vater Present? Note the Present? Note in Present? Note apillary fringe) Recorded Data (st	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inversion of Inv	ed Leaves RA 1,2,4A, 11) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla in in Rema	and 4B) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6) .RR A) Wetland Hyd	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (
Wetland I Primary Ir Surface Water Sedim Drift I Algal I Iron D Surface Inund Sparse Field Obse Surface W Water Tal Saturation (includes ca	Hydrology Indicated andicators (minimulated Mater (A1)) Water Table (A2) ation (A3) In Marks (B1) In Marks (B1) In Mathor Crust (B4) Deposits (B3) Mathor Crust (B4) Deposits (B5) Ice Soil Cracks (B6) Iation Visible on A lely Vegetated Corevations: Vater Present? Note the Present? Note in Present? Note apillary fringe) Recorded Data (st	erial Image ncave Surfa	Wa	ter-Staine xcept ML : Crust (B2 uatic Inversion of Inv	ed Leaves RA 1,2,4A, 11) rtebrates (Ifide Odor zospheres Reduced In Reduction tressed Pla in in Rema	and 4B) (C1) along Livi con (C4) in Tilled S ants (D1)(I	oils (C6) .RR A) Wetland Hyd	WaterDrainaDry-SeSaturaGeomShalloFAC-NRaisecFrost-	r-Stained Leaves (B9)(MLRA 1,2,4A,4B) rege Patterns (B10) reason Water Table (C2) reason Water Table (C9) reason Water Table (

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

Project/Site La Center School District/NE Lockwood Cree Applicant/Owner: La Center School District State: WA Investigator(s): Kevin Grosz, Ryan Thiele Landform (hillslope, terrace, etc.): hillslope Subregion (LRR): Northwest Forests & Coast (LRR A) Soil Map Unit Name: Gee silt loam NWI classification Are climatic/hydrologic conditions on the site typical for Are Vegetation, Soil, or Hydrology significantly Are Vegetation, Soil, or Hydrology naturally provided the substitution of the site of the substitution of the site of the substitution of the substituti	Section, Towns Local relief (co Lat: on: N/A r this time of year? y disturbed? roblematic?	Art locations,	2, T4N, R1E none): none Long: -122.6 plain in Remai Are "Normal (if needed, e	rks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 10 meter) 1. 2. 3. 4. Total Cover = 0 Sapling/Shrub Stratum (Plot size: 10 meter) 1. 2. 3. 4. Total Cover = 0 Herb Stratum (Plot size: 1 meter) 1. Agrostis capillaris	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 15 x 2 = 30 FAC species 68 x 3 = 204 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0
2. Phalaris arundinacea 3. Lupinus polyphyllus 4. Holcus lanatus 5. 6. 7. 8. 9. 10. 11. Total Cover = 81 Woody Vine Stratum (Plot size: 1 meter) 1. Rubus armeniacus 2. Total Cover = 2	15 1 5 2	No No No Yes	FAC FAC FAC	Column Totals: 83 (A) 234 (B) Prevalence Index = B/A = 2.82 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test >50% X 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum: <u>19</u> Remarks:				Hydrophytic Vegetation Present? Yes

SOIL Sampling Point: 6

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

	Mat	<u>rix</u>		Redox I	-eatures				
Depth	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
(inches)									
0-12	10YR 3/2	<u>90</u>	7.5YR 4/4	<u>10</u>	<u>C</u>	<u>M</u>	Silt Loam		
<u>12-16</u>	10YR 3/1	80	7.5YR 4/4	20	<u>C</u>	M	Silt Loam		
1- 0		D 1	D14 D 1 114			0 1 10	10 : 1		
-Type: C=	=Concentration, D	=Depletior	, RM=Reduced Ma	atrix, CS=0	Loverea o	r Coated S	and Grains.	Location: Pi	L=Pore Lining, M=Matrix
Hydric So	il Indicators: (Ap	plicable to	all LRRs, unless ot	herwise ı	noted.)			Indicato	rs for Problematic Hydric Soils ³ :
Histos	sol (A1)		Sa	ndy Redo	x (S5)			2 cr	n Muck (A10)
Histic	Epipedon (A2)		St	ripped Ma	atrix (S6)			Rec	l Parent Material (TF2)
Black	Histic (A3)		Lo	amy Muc	ky Minera	l (F1) (exc	ept MLRA 1)	Ve	ry Shallow Dark Surface (TF12)
Hydro	ogen Sulfide (A4)		· · · · · · · · · · · · · · · · · · ·	-	ed Matrix				er (Explain in Remarks)
, Deple	eted Below Dark S	urface (A1	·	pleted M					, ,
	Dark Surface (A1	•		•	Surface (F	6)		3Indicat	ors of hydrophytic vegetation and
	/ Mucky Mineral (-	·		ark Surface				d hydrology must be present, unless
	, Gleyed Matrix (S		· · · · · · · · · · · · · · · · · · ·	•	essions (F				ed or problematic.
•				иох вері		<i>-</i>			
Type:	e Layer (if preser	it):							
Depth (in	ches): 0							Hydric	Soil Present? Yes
	· -							,	
Remarks:									
HYDROLO	icv								
	Hydrology Indicat	ors:							
			equired; check all	that apply	/)			Secondary	Indicators (two or more required)
	ce Water (A1)		-		ed Leaves	(RQ)			-Stained Leaves (B9)(MLRA 1,2,4A,4B)
	Water Table (A2)				RA 1,2,4A	. ,			ge Patterns (B10)
			•	•		, and 40)			
	ation (A3)		<u></u> -	t Crust (B:	-	(D12)			eason Water Table (C2)
	r Marks (B1)				rtebrates (ition Visible on Aerial Imagery (C9)
	ent Deposits (B2)		· · · · · · · · · · · · · · · · · · ·	-	lfide Odor				orphic Position (D2)
	Deposits (B3)		·		•	_	ng Roots (C3)		w Aquitard (D3)
	Mat or Crust (B4)				Reduced Ir				eutral Test (D5)
Iron D	eposits (B5)		· · · · · · · · · · · · · · · · · · ·		Reduction			Raised	Ant Mounds (D6)(LRR A)
Surfac	ce Soil Cracks (B6)		Stu	nted or St	tressed Pla	ants (D1)(I	.RR A)	Frost-l	Heave Hummocks (D7)
Inund	ation Visible on A	erial Image	ery (B7)Oth	ner (Expla	in in Rema	ırks)			
Sparse	ely Vegetated Cor	ncave Surfa	ce (B8)						
Field Obse	ervations:								
Surface W	/ater Present? <u>No</u>	<u>)</u>	Depth (inc	ches):					
	ole Present? <u>No</u>	<u>)</u>	Depth (in	•					
	n Present? <u>No</u>	<u>)</u>	Depth (in	ches):			Wetland Hud	rology Droc	ont3 Voc
	apillary fringe)	roam carr	o monitoring	agricl r	notos ars	ious inse	Wetland Hyd		Circ. <u>163</u>
הפארוומה ו	necorueu Dala (SI	ı caili gaug	e, monitoring well	, aeriai pr	iotos, pre\	vious ilispe	cuonsj, ii dvallal	DIE.	
Remarks:									

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

	n, Township, Rang elief (concave, con Lat: n: <u>N/A</u> this time of year? disturbed? oblematic?	nvex, none): <u>co</u> 45.86012280 Yes (if no, exp	nvex Slo Long: <u>-122.6</u> Dlain in Remal Are "Normal (if needed, e	rks.) Circumstances" present? <u>Yes</u> xplain any answers in Remarks.)
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 10 meter) 1. 2. 3.	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A) Total Number of Dominant
4.				Species Across All Strata: <u>3</u> (B)
Total Cover = <u>0</u>				Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 10 meter)				That Are OBL, FACW, or FAC: 66 (A/B)
1. 2. 3. 4. 5. Total Cover = 0 Herb Stratum (Plot size: 1 meter) 1. Phalaris arundinacea 2. Agrostis capillaris 3. Anthoxanthum odoratum 4. Schedonorus arundinaceus 5. 6. 7. 8. 9. 10. 11. Total Cover = 90 Woody Vine Stratum (Plot size: 10 meter) 1. 2. Total Cover = 0	10 40 20 20	No Yes Yes Yes	FACW FAC FACU FAC	Prevalence Index worksheet: Total % Cover of: DBL species 0 FACW species 10 FAC species 60 FAC species 20 FACU species 0 Column Totals: Prevalence Index = B/A = $\frac{3.11}{2}$ Hydrophytic Vegetation Indicators: 1 -Rapid Test for Hydrophytic Vegetation X 2 - Dominance Test >50% 3 - Prevalence Index is ≤ 3.0¹ 4 - Morphological Adaptions¹ (Provide supporting data in Remarks or on a separate sheet) 5 - Wetland Non-Vascular Plants¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
% Bare Ground in Herb Stratum: <u>10</u>				Hydrophytic Vegetation Present? No
Remarks:			1	, , , ,

SOIL Sampling Point: 5

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

	<u>Mat</u>	<u>rix</u>		Redox I	-eatures						
Depth	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
(inches)	10VD 2/2			0			C:lt l a a ma				
<u>0-16</u>	10YR 3/2	<u>0</u>		<u>0</u>			<u>Silt Loam</u>				
¹Type: C=	Concentration, D	ı =Depletio	n, RM=Reduced Ma	atrix, CS=	Covered o	r Coated S	and Grains. 2	Location: PI	L=Pore Lining, M=Matrix		
Hydric So	il Indicators: (Ap	plicable to	all LRRs, unless ot	herwise i	noted.)			Indicato	rs for Problematic Hydric Soils ³ :		
	sol (A1)	•		ndy Redo					m Muck (A10)		
· · · · · · · · · · · · · · · · · · ·	Epipedon (A2)			ripped Ma					Parent Material (TF2)		
	Black Histic (A3)Loamy Mucky Mineral (F1) (except MLRA 1)					ept MLRA 1)		ry Shallow Dark Surface (TF12)			
	ogen Sulfide (A4)			•	ed Matrix			·	ner (Explain in Remarks)		
	ted Below Dark S	urface (A1		pleted M							
Thick	Dark Surface (A1	2)	Re	dox Dark	Surface (F	6)		³ Indicat	ors of hydrophytic vegetation and		
Sandy	Mucky Mineral (S1)	De	pleted Da	ark Surface	e (F7)			d hydrology must be present, unless		
Sandy	Gleyed Matrix (S	54)	Re	dox Depr	essions (F	3)		disturb	ed or problematic.		
Restrictiv	e Layer (if preser	nt):									
Type:											
Depth (in	ches): <u>0</u>							Hydric	Soil Present? No		
Remarks:											
HYDROLO	icv										
	Hydrology Indicat	tors:									
			equired; check all	that apply	/)			Secondary	Indicators (two or more required)		
Surfac	e Water (A1)		Wa	ter-Staine	ed Leaves	(B9)		Water	-Stained Leaves (B9)(MLRA 1,2,4A,4B)		
—— High V	Water Table (A2)				RA 1,2,4A				age Patterns (B10)		
_	ation (A3)			t Crust (B:				Dry-Season Water Table (C2)			
	Marks (B1)		Aqı	uatic Inve	rtebrates (B13)			ition Visible on Aerial Imagery (C9)		
Sedim	ent Deposits (B2))	Hyd	drogen Su	lfide Odor	(C1)		Geom	orphic Position (D2)		
Drift [Deposits (B3)		Oxi	dized Rhi	zospheres	along Livi	ng Roots (C3)	Shallo	w Aquitard (D3)		
Algal I	Mat or Crust (B4)		Pre	sence of	Reduced Ir	on (C4)		FAC-N	eutral Test (D5)		
Iron D	eposits (B5)		Rec	ent Iron I	Reduction	in Tilled S	oils (C6)	Raised	Ant Mounds (D6)(LRR A)		
Surfac	e Soil Cracks (B6)		Stu	nted or S	tressed Pla	nts (D1)(I	.RR A)	Frost-l	Heave Hummocks (D7)		
Inund	ation Visible on A	erial Image	ery (B7)Oth	ner (Expla	in in Rema	rks)					
Sparse	ely Vegetated Cor	ncave Surfa	ice (B8)								
Field Obse	ervations:										
	ater Present? No	_	Depth (inc	•							
	ole Present? <u>No</u>		Depth (in	-							
	n Present? <u>No</u> apillary fringe)	<u>)</u>	Depth (in	cnes):			Wetland Hyd	rology Pres	ent? No		
		ream gaug	e, monitoring well	, aerial pł	notos, prev	ious inspe			_		
	•	5 0	J	·	•	•					
Remarks:											

APPENDIX B

WETLAND RATING FORMS FOR WESTERN WASHINGTON & FIGURES

RATING SUMMARY – Western Washington

Name of wetland (or ID #): NE Lockwood C Rated by Alex Sherman	<u>creek Rd/North - Wetland A</u> Date of site visit: 9/20/18 Trained by Ecology? YesNo Date of training 9/18/17
,	
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y _xN
•	put the figures requested (figures can be combined). p ArcGIS World Imagery Basemap
,	
OVERALL WETLAND CATEGORY _	(based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

FUNCTION		mpro ater C	ving Quality	Н	ydro	logic		Habit	tat	
					Circle	e the ap	prop	riate r	atings	
Site Potential	Н	М	<u>L</u>	Н	М	<u>L</u>	Н	М	<u>L</u>	
Landscape Potential	Н	M	L	Н	М	<u>L</u>	<u>H</u>	М	L	
Value	<u>H</u>	М	L	Н	М	<u>L</u>	Н	М	L	TOTAL
Score Based on Ratings	(6			3			5		14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H, M, M6 = H,M,L6 = M,M,M5 = H,L,L5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I	II	
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above	Not Applicable		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	В3
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	В3
(can be added to figure above)		БЭ
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	B4
polygons for accessible habitat and undisturbed habitat		D4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	В8
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	В7

HGM Classification of Wetlands in Western Washington

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

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

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

NO - go to 2

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

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

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

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

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

NO - go to 3

YES - The wetland class is **Flats**

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

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

NO - go to 4

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

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

 - _x_The wetland is on a slope (*slope can be very gradual*),
 x__The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
 - 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.

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

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

Record the rating on the first page

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

Rating of Landscape Potential If score is: <u>x</u> 1-2 = M ___0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4

Rating of Value If score is: $X_2-4 = H_1 = 0 = L$

Record the rating on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream ero	sion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > $^{1}/_{8}$ in), or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0	0

Rating of Site Potential If score is: $_{1} = M \times _{0} = L$

Record the rating on the first page

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

Rating of Landscape Potential If score is: ___1 = M \times __0 = L

Record the rating on the first page

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

Rating of Value If score is: $_2-4 = H$ $_1 = M$ $_2 = M$

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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

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 [2 in diameter and 6 ft long). Standing snags (dbh - 4 in) within the wetland [2 in diameter and 6 ft long). Standing snags (dbh - 4 in) within the wetland [3 in diameter and 6 ft long). Standing snags (dbh - 4 in) within the wetland (or at least 33 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) X. At least X ac of thin stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strote) Total for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7.14 = Mx_0-6 = L					
Large, downed, woody debris within the wetland (>4 in diameter and 6 ft long). Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) X. At least X as of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 1. Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L	H 1.5. Special habitat features:				
Standing snags (dbh > 4 in) within the wetland Undercut benins are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) GN signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) **A At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strato) Total for H 1	Check the habitat features that are present in the wetland. The number of checks is the number of points.				
	Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).				
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that hove not yet weathered where wood is exposed) X. At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphiblions) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of stratu) Total for H 1 Add the points in the boxes above 1 Rating of Site Potential If score is:15-18 = H7-14 = MY_0-6 = L	Standing snags (dbh > 4 in) within the wetland				
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) X	Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)				
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) X. At least % as of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibions) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 1 Rating of Site Potential if score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 13 + {{% moderate and low intensity land uses}/2} 13 =26	over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)				
### At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibions) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1	Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree				
X_At least % ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Add the points in the boxes above 1	slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered				
permanently or seasonally inundated (structures for egg-laying by amphibians)invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Rating of Site Potential If score is:15-18 = H7-14 = MX_0-6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate:	where wood is exposed)				
invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Rating of Site Potential If score is:15-18 = H7-14 = Mx_0-6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat functions of the site? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate:	X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are				
Total for H 1	permanently or seasonally inundated (structures for egg-laying by amphibians)				
Rating of Site Potential If score is:15-18 = H7-14 = Mx0-6 = L	Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	1			
Rating of Site Potential If score is:15-18 = H7-14 = Mx_0-6 = L	strata)				
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 \frac{13}{3} + \frac{1}{10} \text{ moderate and low intensity land uses}/2\frac{13}{3} = \frac{26}{30} \text{ lift total accessible habitat is:} > \frac{1}{1} \text{ (33.3%) of 1 km Polygon} \text{ points = 2} \text{ points = 2} \text{ 10-19% of 1 km Polygon} \text{ points = 0} \text{ points = 0} \text{ 2 } \text{ 10% of 1 km Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of 1 km Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of 1 km Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of 1 km Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of 1 km Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of Polygon} \text{ points = 0} \text{ 2 } \text{ 10% of Polygon} \text{ points = 2 } \text{ 10% of Polygon} \text{ points = 2 } \text{ 10Misturbed habitat 10-50% and in 1-3 patches} \text{ points = 2 } \text{ 10Misturbed habitat 10-50% and > 3 patches} \text{ points = 2 } \text{ 10Misturbed habitat 10-50% and > 3 patches} \text{ points = 0} \text{ 10 } \text{ 10Misturbed habitat 1 \text{ 10% of 1 km Polygon If } \text{ points = 0} \text{ 2 } \text{ 250% of 1 km Polygon is high intensity land use } \text{ points = 0} \text{ 2 } \text{ 250% of 1 km Polygon is high intensity land use } \text{ points = 0} \text{ 2 } \text{ Add the points in the boxes above } \text{ 5 } \text{ Record the rating on the first page} \text{ H 3.0. Is the habitat provided by the site valuable to society?} H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANV of the following criteria:	Total for H 1 Add the points in the boxes above	1			
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat 13 + [(% moderate and low intensity land uses)/2] 13 = 26 % If total accessible habitat is: > ½, (33.3%) of 1 km Polygon 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 27 + [(% moderate and low intensity land uses)/2] 24 = 51 % Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 10-50% is in Polygon Points = 0 H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use 50% of 1 km Polygon is high intensity land use points = (-2) Total for H 2 Add the points in the boxes above Fating of Landscape Potential: If score is: X_4-6 = H1-3 = M<1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	Rating of Site Potential If score is:15-18 = H7-14 = MX0-6 = L	the first page			
Calculate: % undisturbed habitat 13 + [(% moderate and low intensity land uses)/2] 13 = 26 %	H 2.0. Does the landscape have the potential to support the habitat functions of the site?				
Calculate: % undisturbed habitat 13 + [(% moderate and low intensity land uses)/2] 13 = 26 %	H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).				
If total accessible habitat is: > \frac{1}{3} (33.3%) of 1 km Polygon 20-33% of 1 km Polygon 20-33% of 1 km Polygon 20-10% of 1 km Polygon 20-10% of 1 km Polygon 20-20 points = 1 20-20 points = 1 20-20 points = 1 20-20 points = 1 20-20 points = 0 Define Polygon 20-20 points = 2 Define Polygon 20-20 points = 1 Define Polygon 20-20 points = 1 Define Polygon Define Pol	1				
> 1/3 (33.3%) of 1 km Polygon 20-33% of 1 km Polygon 10-19% of 1 km Polygon 20 points = 2 10-19% of 1 km Polygon 20 points = 1 20 points = 1 20 points = 1 20 points = 1 20 points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 27 + {(% moderate and low intensity land uses)/2] 24 points = 3 20 points = 3 20 points = 3 20 points = 3 20 points = 4 20 points = 3 20 points = 2 20 points = 4 20 points = 2 20 points = 1 20 points = 3 20 points = 2 20 points = 1 20 points = 3 20 points = 2 20 points = 1 20 points = 2 20 points = 2 20 points = 1 20 points = 2 20 poin					
20-33% of 1 km Polygon 20-10-19% of 1 km Polygon around the wetland. 20-10-10-10-10-10-10-10-10-10-10-10-10-10					
10-19% of 1 km Polygon					
X	· ·	2			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: % undisturbed habitat 27 + [(% moderate and low intensity land uses)/2] 24 = 51 % Undisturbed habitat > 50% of Polygon Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat < 10% of 1 km Polygon H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use \$ 50% of 1 km Polygon is high intensity Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	· ·	2			
Calculate: % undisturbed habitat 27 + [(% moderate and low intensity land uses)/2] 24 = 51 % Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 Undisturbed habitat < 10% of 1 km Polygon points = 0 H 2.3. Land use intensity in 1 km Polygon: If points = (-2)					
Undisturbed habitat > 50% of Polygon	I F1				
Undisturbed habitat 10-50% and in 1-3 patches Undisturbed habitat 10-50% and > 3 patches Undisturbed habitat 10-50% and > 3 patches 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 ≤ 50% of 1 km Polygon is high intensity Points = 0 Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: Points = 2 It has 3 or more priority habitats within 100 m (see next page) It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) It is mapped as a location for an individual WDFW priority species					
Undisturbed habitat 10-50% and > 3 patches	· ·				
Undisturbed habitat < 10% of 1 km Polygon H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	·	3			
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	·	9			
> 50% of 1 km Polygon is high intensity land use ≤ 50% of 1 km Polygon is high intensity Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species					
Solve of 1 km Polygon is high intensity Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	, , , , , , , , , , , , , , , , , , , ,	n			
Total for H 2 Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species		Ü			
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H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the score is: X 8 Record the rating of X 8 Record the ratin	he first page			
that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species	H 3.0. Is the habitat provided by the site valuable to society?				
Site meets ANY of the following criteria: points = 2 — It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species					
 It has 3 or more priority habitats within 100 m (see next page) It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) It is mapped as a location for an individual WDFW priority species 					
 It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) It is mapped as a location for an individual WDFW priority species 	Site meets ANY of the following criteria: points = 2				
— It is mapped as a location for an individual WDFW priority species	 — It has 3 or more priority habitats within 100 m (see next page) 				
It is a Westland of High Consequation Value as determined by the Department of Natural Description					
	 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 				
It has been categorized as an important habitat site in a local or regional comprehensive plan, in a					
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitate (listed on poyt page) within 100 m					
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	Site has 1 of 2 priority habitats (listed off flext page) within 100 fit	0			
Site does not meet any of the criteria above points = 0 Pating of Value If score is: 2 = H 1 = M × 0 = L					

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

Record the rating on the first page

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	C-1
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-152 Yes = Category I No - Go to SC 1.	Cati
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
 The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i>, see page 25) At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. I
mowed grassland.	
— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category I	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHC	,
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No = Not a WHC	/
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the ke	<i>y</i>
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in o	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 No – Go to SC 3.3	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake of pond? Yes – Go to SC 3.3 No = Is not a book of the second	
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.	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion	•
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 bo	
Yes = Is a Category I bog No = Is not a bo	5

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

RATING SUMMARY – Western Washington

Name of wetland (or ID #): NE Lockwoo	od Creek Rd/North - Wetland B Date of site visit: 9/20/18
Rated by_Alex Sherman	Trained by Ecology?_x_ YesNo Date of training_9/18/17
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y _ x _N
NOTE: Form is not complete wit Source of base aerial photo/r	thout the figures requested (figures can be combined). mapArcGIS World Imagery
OVERALL WETLAND CATEGORY	IV (based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

FUNCTION		Improving Water Quality		Hydrologic			Habi	tat		
					Circle	the ap	prop	riate i	ratings	
Site Potential	Н	М	<u>L</u>	Н	М	<u>L</u>	Н	М	<u>L</u>	
Landscape Potential	Н	M	L	Н	М	<u>L</u>	Н	M	L	
Value	<u>H</u>	М	L	Н	М	<u>L</u>	Н	М	<u>L</u>	TOTAL
Score Based on Ratings		6			3			4		13

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I	II	
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above	Not Applicable		

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	В3
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	В3
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	B5
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	B8
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	B7

HGM Classification of Wetlands in Western Washington

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

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

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

NO - go to 2

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

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

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

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

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

NO - go to 3

YES – The wetland class is **Flats**

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

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

NO - go to 4

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

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

NO – go to 5

YES - The wetland class is **Slope**

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

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

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

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

Record the rating on the first page

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

Rating of Landscape Potential If score is: X 1-2 = M ___0 = L

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4

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

Record the rating on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream ero	sion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > $^{1}/_{8}$ in), or dense enough, to remain erect during surface flows.	
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	0
All other conditions points = 0	

Rating of Site Potential If score is: $_{1} = M \times _{0} = L$

Record the rating on the first page

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

Rating of Landscape Potential If score is: $x_1 = M_0 = 0$

Record the rating on the first page

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

Rating of Value If score is: ____2-4 = H ____1 = M ___X __0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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

II.4.5. Consider high that footh was	
H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	
where wood is exposed)	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
_X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	1
Total for H 1 Add the points in the boxes above	4
Rating of Site Potential If score is:15-18 = H7-14 = M $_{\times}$ _0-6 = L Record the rating on the score is:15-18 = H7-14 = M $_{\times}$ _0-6 = L	the first page
	, , 3
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 $\frac{12}{12}$ + [(% moderate and low intensity land uses)/2] $\frac{13}{13}$ = $\frac{25}{12}$ %	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	2
< 10% of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. **Calculate:** % undisturbed habitat 25 + [(% moderate and low intensity land uses)/2] 25 = 50 %	
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	1
Undisturbed habitat < 10% of 1 km Polygon points = 0	_
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	3
Rating of Landscape Potential If score is:4-6 = H \underline{x} 1-3 = M $\underline{\hspace{0.5cm}}$ < 1 = L Record the rating on the	ne first naae
nating of Earlandape Potential in Score isi Po=11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11 1 = 11	ic jiist page
H 3.0. Is the habitat provided by the site valuable to society?	-
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score	
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
— It has 3 or more priority habitats within 100 m (see next page)	
— It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)	
— It is mapped as a location for an individual WDFW priority species	
— It is a Wetland of High Conservation Value as determined by the Department of Natural Resources	
— It has been categorized as an important habitat site in a local or regional comprehensive plan, in a	
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	
	0
Site does not meet any of the criteria above points = 0	

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

Record the rating on the first page

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No= Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-19 Yes = Category I No - Go to SC 1	Cat I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un	Cat. I
mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, o contiguous freshwater wetlands. Yes = Category I No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category INo = Not a WHCV	C-4 1
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 No = Not a WHCV	
SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it o their website? Yes = Category I No = Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the below.</i> If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in	n or
more of the first 32 in of the soil profile? SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deed 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 3.3 No = Is not a b	ep e or
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 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterior 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 plant species in Table 4 are present, the wetland is a bog.	3.4 n by
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 both species (or combination of species)	/ ?

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

RATING SUMMARY – Western Washington

· · · · · · · · · · · · · · · · · · ·	Creek Rd/North - Wetland C Date of site visit: 9/20/18
Rated by Alex Sherman	Trained by Ecology? $^{\times}$ YesNo Date of training $^{9/18/17}$
HGM Class used for rating Slope	Wetland has multiple HGM classes?Y _xN
NOTE: Form is not complete with Source of base aerial photo/ma	nout the figures requested (figures can be combined). apArcMap World Imagery
OVERALL WETLAND CATEGORY _	(based on functions X or special characteristics)

1. Category of wetland based on FUNCTIONS

Category I – Total score = 23 - 27

Category II – Total score = 20 - 22

Category III – Total score = 16 - 19

X Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality		Hydrologic			Habitat				
					Circle	the ap	prop	riate i	ratings	
Site Potential	Н	М	<u>L</u>	Н	М	<u>L</u>	Н	М	<u>L</u>	
Landscape Potential	Н	M	L	Н	<u>M</u>	L	Н	<u>M</u>	L	
Value	<u>H</u>	М	L	Н	М	<u>L</u>	Н	М	<u>L</u>	TOTAL
Score Based on Ratings		6			4			4		14

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H, H, M7 = H,H,L 7 = H,M,M6 = H,M,L6 = M,M,M5 = H,L,L5 = M,M,L4 = M,L,L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland of High Conservation Value	I	
Bog	I	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above	Not A	pplicable

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	B3
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	В3
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B1
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	В6
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	B8
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	\$ 3.3	В7

HGM Classification of Wetlands in Western Washington

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

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

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

NO - go to 2

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

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

NO - Saltwater Tidal Fringe (Estuarine)

YES - Freshwater Tidal Fringe

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

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

NO - go to 3

YES – The wetland class is **Flats**

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

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

NO - go to 4

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

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

NO – go to 5

YES - The wetland class is **Slope**

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

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

SLOPE WETLANDS Water Quality Functions - Indicators that the site functions to improve water quality	
S 1.0. Does the site have the potential to improve water quality?	
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every 100 ft of horizontal distance)	
Slope is 1% or less points = 3	
Slope is > 1%-2% points = 2	
Slope is > 2%-5% points = 1	3
Slope is greater than 5% points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:	
Choose the points appropriate for the description that best fits the plants in the wetland. Dense means you	
have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.	
Dense, uncut, herbaceous plants > 90% of the wetland area points = 6	
Dense, uncut, herbaceous plants $> \frac{1}{2}$ of area points $= 3$	
Dense, woody, plants > ½ of area points = 2	
Dense, uncut, herbaceous plants > ¼ of area points = 1	1
Does not meet any of the criteria above for plants points = 0	
Total for S 1 Add the points in the boxes above	4

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

Record the rating on the first page

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

Rating of Landscape Potential If score is: $X_1-2 = M_2$

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site valuable to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? Yes = 1 No = 0	1
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	4

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

Record the rating on the first page

SLOPE WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream en	osion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > \frac{1}{2} in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1	
All other conditions points = 0	

Rating of Site Potential If score is: $_{1} = M \times _{0} = L$

Record the rating on the first page

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

Rating of Landscape Potential If score is: $X_1 = M_2 = 0$

Record the rating on the first page

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

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

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

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

[]		
H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. The number of checks is the num	ber of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland		
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends a	at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for denning		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not y	vet weathered	
where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)		
_x_Invasive plants cover less than 25% of the wetland area in every stratum of plants (see F strata)	1 1.1 for list of	1
Total for H 1 Add the points in	the boxes above	4
Rating of Site Potential If score is:15-18 = H7-14 = MX0-6 = L	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat $\frac{13}{1}$ + [(% moderate and low intensity land uses)/2]] <mark>13 = 26 %</mark>	
If total accessible habitat is:		
$> \frac{1}{3}$ (33.3%) of 1 km Polygon	points = 3	
20-33% of 1 km Polygon	points = 2	2
10-19% of 1 km Polygon	points = 1	_
< 10% of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	P	
Calculate: % undisturbed habitat 26 + [(% moderate and low intensity land uses)/2]	<u> 24 </u>	
Undisturbed habitat > 50% of Polygon	points = 3	
Undisturbed habitat 10-50% and in 1-3 patches	points = 2	1
Undisturbed habitat 10-50% and > 3 patches	points = 1	1
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3. Land use intensity in 1 km Polygon: If	points o	
> 50% of 1 km Polygon is high intensity land use	points = (- 2)	0
≤ 50% of 1 km Polygon is high intensity	points = 0	
	•	3
Total for H 2 Add the points in Rating of Landscape Potential If score is: 4-6 = H x 1-3 = M < 1 = L Ref	ecord the rating on th	
	toru the ruting on the	
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only</i>	the highest score	
that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
— It has 3 or more priority habitats within 100 m (see next page)		
— It provides habitat for Threatened or Endangered species (any plant or animal on the sta	te or federal lists)	
It is mapped as a location for an individual WDFW priority species This is a Walland of High Consequentian Value and determined by the Research and Alexander The consequence of Network Consequence of	D	
It is a Wetland of High Conservation Value as determined by the Department of Natural A base because the series of the ser		
It has been categorized as an important habitat site in a local or regional comprehensive Shareling Master Plan, or in a watershed plan.	pian, in a	
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	0
		0
Site does not meet any of the criteria above	points = 0	ul fi
Rating of Value If score is: $2 = H$ $1 = M$ x $0 = L$	Record the rating on	tne first page

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

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
 The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon 	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II
 — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland is larger than ¹/10 ac (4350 ft²) 	
Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
Long Beach Peninsula: Lands west of SR 103	
— Grayland-Westport: Lands west of SR 105	Cat I
 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating 	
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M	Cat. II
for the three aspects of function)? Yes = Category I No – Go to SC 6.2	
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3	Cat. III
Yes = Category II No – Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?	
Yes = Category III No = Category IV	Cat. IV
Category of wetland based on Special Characteristics	NA

APPENDIX B

WETLAND RATING FORMS FOR WESTERN WASHINGTON & FIGURES

FIGURE B1 – COWARDIN VEGETATION

FIGURE B2 – HYDROPERIODS MAP

FIGURE B3 – PLANT COVER MAP

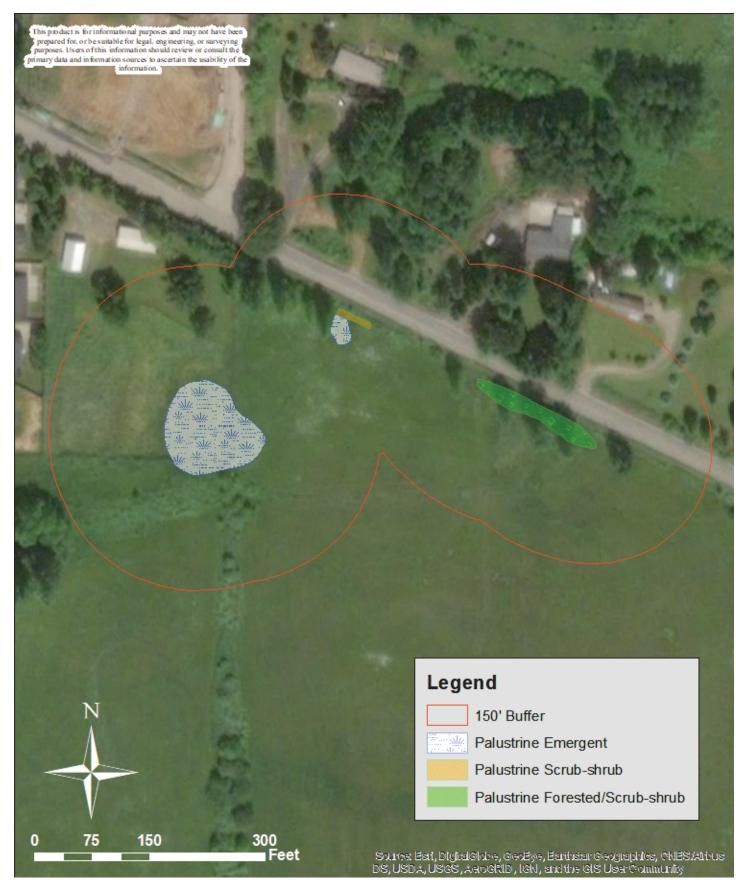
FIGURE B4 – LAND USE INTESITY MAP: WETLAND A

FIGURE B5 - LAND USE INTESITY MAP: WETLAND B

FIGURE B6 - LAND USE INTESITY MAP: WETLAND C

FIGURE B7 – LIST OF TMDLS IN PROJECT WATERSHED

FIGURE B8 - 303(d) WATER QUALITY ASSESSMENT MAP



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Cowardin Vegetation Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed
LEGAL: NE ¼ of S2, T4N, R1E, W. M.
NEAR: La Center, Washington
COUNTY: Clark County

COUNTY: Clark County
DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

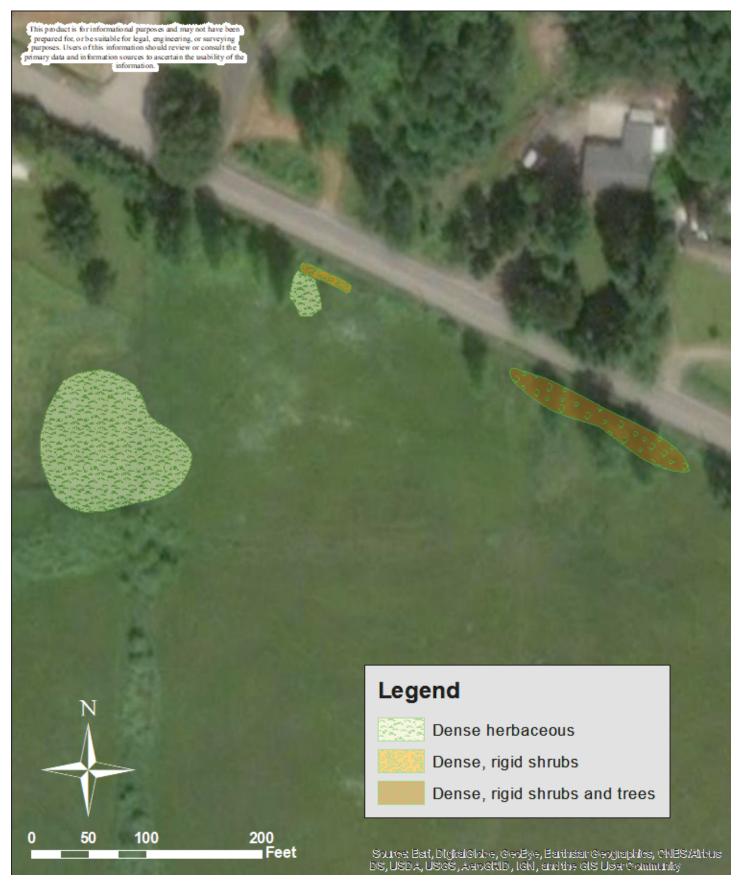
Hydro-Period Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

DATE: September 26, 2018

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

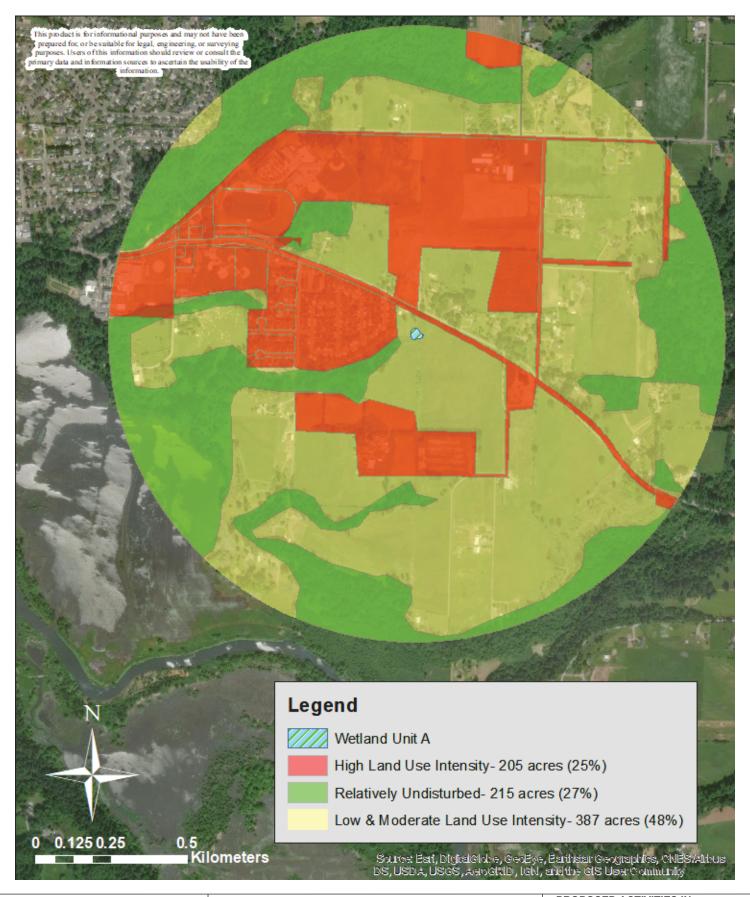
Plant Cover Map
NE Lockwood Creek Road - North Parcel
La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County

DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

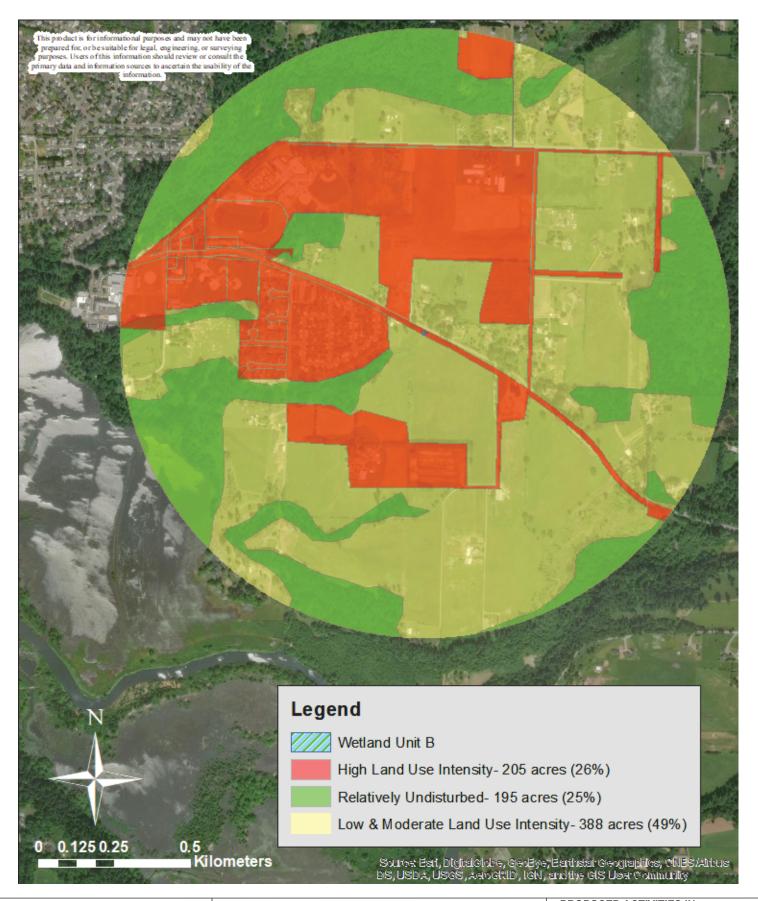
PURPOSE: Wetland Delineation & Assessment

Wetland A - Land Use Intensity Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

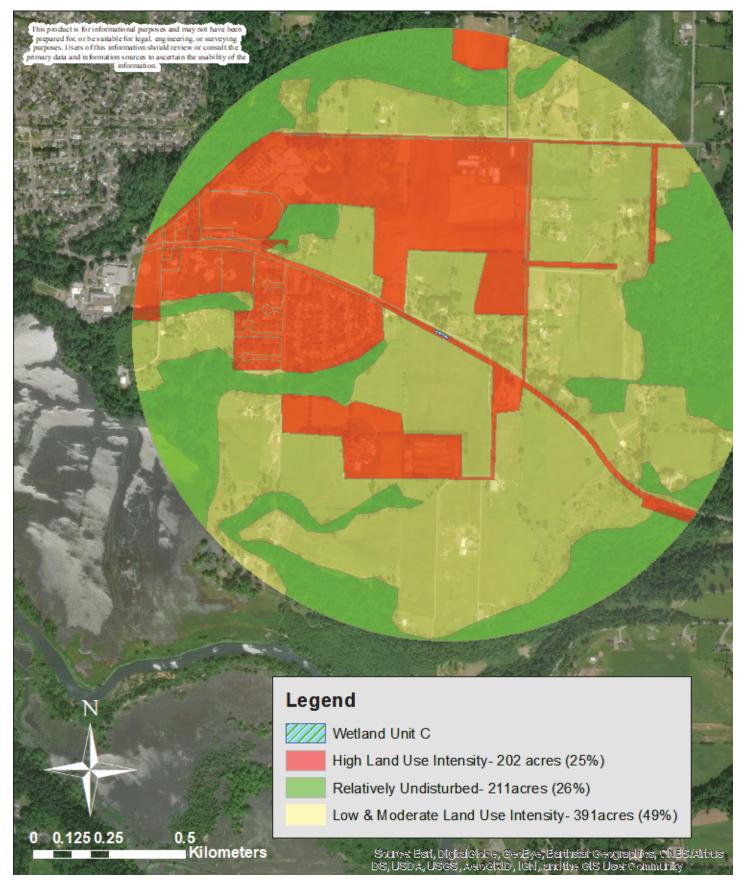
Wetland B - Land Use Intensity Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed
LEGAL: NE ¼ of S2, T4N, R1E, W. M.
NEAR: La Center, Washington
COUNTY: Clark County

COUNTY: Clark County
DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Wetland C - Land Use Intensity Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington

NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018

Z819 Z820 46224 Z0061 27 - Lewis 27 - Lewis 27 - Lewis LOCKWOOD CREEK LOCKWOOD CREEK *The 303(d) List contains only Category 5 Listings.* LOCKWOOD CREEK New Search Refine Search Export to File 4 Matched Listings Category ın **Temperature** Bacteria Bacteria Washington State Water Quality Assessment Water 17080002000336

LOCKWOOD CREEK Export to File

New Search

17080002000336

46224

APPLICANT:

La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

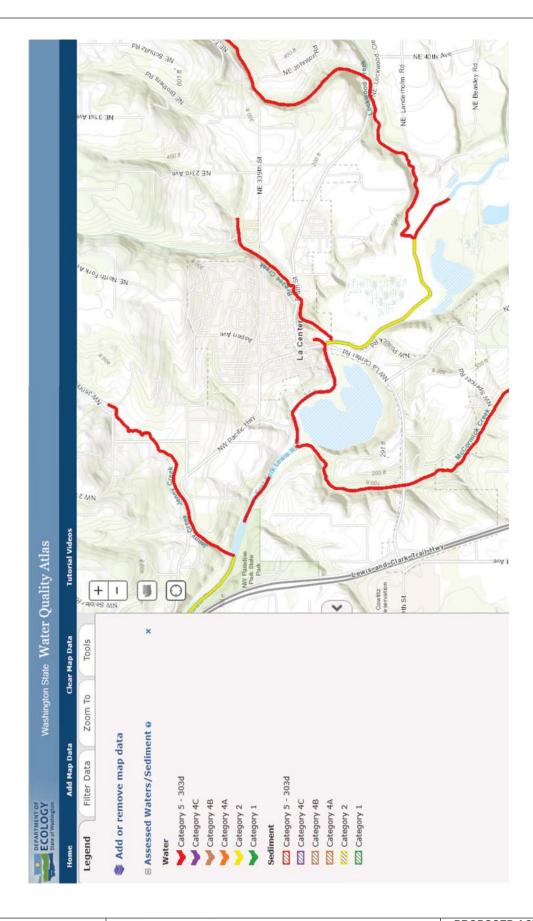
TMDL List NE Lockwood Creek Road - North Parcel La Center, Washington

7819 7820



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed **LEGAL:** NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018



La Center School District 725 NE Highland Ave La Center, WA 98629

PURPOSE: Wetland Delineation & Assessment

Watershed 303(d) Listing Map NE Lockwood Creek Road - North Parcel La Center, Washington



PROPOSED ACTIVITIES IN:

Lockwood Creek Watershed

LEGAL: NE ¼ of S2, T4N, R1E, W. M. NEAR: La Center, Washington COUNTY: Clark County DATE: September 26, 2018