## **CRITICAL AREAS REPORT:**

## WETLANDS & HABITAT CONSERVATION AREAS FOR

## BARKLEY MEADOWS CONDOMINIUMS

Parcel No. 380316 372176

Bellingham, Washington

for

Barkley Meadows, LLC

July 30, 2018

Project 180034



# CRITICAL AREAS REPORT: WETLANDS AND HABITAT CONSERVATION AREAS FOR BARKLEY MEADOWS CONDOMINIUMS

July 30, 2018

Prepared for:

Barkley Meadows, LLC P.O. Box 31548 Bellingham, Washington 98228

Prepared by:

Miller Environmental Services, LLC 222 Grand Avenue, Suite E Bellingham, Washington 98225 360.255.5799

ed@millerenvironmental.org liliana@millerenvironmental.org

Ed Miller, MS, PWS Senior Biologist/Owner

Liliana Hansen, PWS Senior Biologist/Owner

### **Author Qualifications**

This report was prepared by Ed Miller and Liliana Hansen.

Ed Miller is a senior biologist and co-owner of Miller Environmental Services, LLC, who specializes in wetlands, wildlife, and habitat assessments. He is a Society of Wetland Scientists certified Professional Wetland Scientist (PWS), #1895. Mr. Miller obtained a Bachelor of Science in Terrestrial Ecology from Western Washington University in 1993 and a Masters of Environmental Science and Management with a focus on Watershed Management at the University of California at Santa Barbara in 2000. His 17 years of experience includes preparing wetland delineations and reports, wetland functional assessments, stream and shoreline ordinary high water mark determinations, habitat conservation area reports, mitigation design, mitigation monitoring and floodplain habitat assessments for FEMA Endangered Species Act compliance. Mr. Miller has completed project permitting and compliance for agencies including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Washington Department of Fish and Wildlife, Washington Department of Ecology.

Liliana Hansen is a senior biologist and co-owner of Miller Environmental Services, LLC. She is a Society of Wetland Scientists certified PWS, #2755. Ms. Hansen received a Bachelor of Science from Western Washington University in Environmental Science and has been working as a consulting biologist since 2003. Ms. Hansen's experience includes wetland delineations, floodplain habitat assessments for FEMA Endangered Species Act compliance, wetland and buffer mitigation design and monitoring, stream and shoreline ordinary high water mark determinations, environmental permitting. She has managed projects from the preliminary site assessment stage through permitting with the Corps, USFWS, WDFW, Ecology, and local jurisdictions.

#### Disclaimer

This report and wetland and/or stream delineation, is based on protocols that are described and defined in manuals and publications utilized by Federal, State, and Local agencies. The wetland delineation methodology used is consistent with the *Washington State Wetlands Identification and Delineation Manual* (Ecology, 1997), the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (Corps, 2010), and subsequent Corps guidance. Completed work is based on conditions at the time of the site visit. No guarantees are given that a delineation determination or assessment will concur exactly with those performed by regulatory agencies or by other qualified professionals.

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#### 1.0 INTRODUCTION

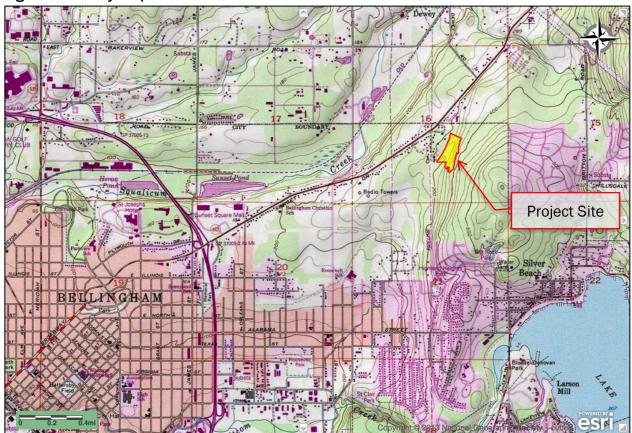
At the request of the applicant, Barkley Meadows LLC, Miller Environmental Services, LLC (MES) conducted a wetland delineation on an 11.22 acre property located west of Chandler Parkway and south of Bristol Way (tax parcel 380316 372176), Bellingham, Washington; Section 16, Township 38 N, Range 03 E, W.M. The project location is shown below on **Figure 1**. A map of the property and critical areas is included as **Appendix A**.

This report presents the best professional judgment of MES in estimating the subject jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. However, only the regulatory agencies can make a final determination of jurisdictional boundaries.

#### 1.1 PURPOSE

This Critical Areas Report was conducted as required within the City of Bellingham Critical Areas Chapter [Bellingham Municipal Code (BMC) 16.55]. This report documents the location and nature of critical areas (wetlands and fish and wildlife habitat conservation areas) on and in the vicinity of the project site.

Figure 1: Vicinity Map



#### 2.0 METHODS

#### 2.1 PRELIMINARY RESEARCH

Published information about local conditions was reviewed for known critical area occurrences in the project vicinity. The information reviewed included:

- National Wetlands Inventory (NWI), Wetlands Mapper, United States Fish and Wildlife Service (USFWS);
- Priority Habitats and Species Mapper, Washington State Department of Fish and Wildlife (WDFW);
- SalmonScape Mapper, WDFW;
- City of Bellingham CitylQ, City of Bellingham;
- Web Soil Survey, United States Department of Agriculture, Natural Resource Conservation Service (NRCS);
- National Hydric Soils List, United States Department of Agriculture, NRCS; and
- National Map Viewer, United States Geological Survey (USGS).

#### 2.2 FIELD INVESTIGATION

A site investigation of the properties was conducted on June 13, 2018 to document site conditions. This included a wetland delineation and an assessment of onsite habitat. MES flagged wetland boundaries and data plot locations. Wetland boundaries were surveyed and mapped by professional land use surveyors. Site photographs taken during the site visit are included within **Appendix B**.

Wetlands were identified on the basis of hydrophytic vegetation, hydric soils, and evidence of wetland hydrology as described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987), *Corps Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (U.S. Army Corps of Engineers, 2010), and subsequent U.S. Army Corps of Engineers (Corps) guidance.

Hydrophytic vegetation (i.e., plants adapted to saturated soil conditions) was determined to be present when dominant cover of plants observed (greater than 50 percent) had an indicator status of facultative (FAC), facultative wetland (FACW), or obligate wetland (OBL). Plant species on-site were identified according to Cooke (1997), Pojar and MacKinnon (1994), and Hitchcock and Cronquist (1973). Plant indicator status was determined using the Western Mountains, Valleys, and Coast 2012 Final Regional Wetland Plant List (Lichvar, 2016).

Hydric soils were determined according to the methodology in the *Field indicators of Hydric* Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 8.1 (USDA NRCS, 2017).

Wetland hydrology was determined through the observation of soil saturation, surface ponding, or other primary and secondary indicators such as water marks, drift deposits, iron

deposits, surface cracks, water stained leaves, drainage patterns, etc. (U.S. Army Corps of Engineers, 2010). Data were collected on vegetation, soils, and hydrology at each data plot and recorded on data forms (**Appendix C**).

#### 2.3 WETLAND CLASSIFICATION AND FUNCTIONAL ASSESSMENT

Wetlands were classified using the USFWS wetland classification system (Cowardin et al., 1979). A wetland rating was completed for the on-site wetlands, using the 2014 Washington State Wetland Rating System for Western Washington (Ecology Rating System) (Hruby, 2014). Rating forms are included in **Appendix D**.

Wetland delineators visited each wetland and determined wetland classes and categories using field observations and resources utilized during the preliminary data review process. Ecology recognizes four categories of wetlands based on sensitivity to disturbance, rarity, the functions they provide, and difficulty to replace.

A qualitative functional assessment was also conducted for the wetland based on the Ecology Rating System (Hruby, 2014). Hydrologic, water quality, and habitat functions were evaluated based on the scoring criteria listed in **Table 1**.

Table 1: 2014 Wetland Functional Assessment Criteria

	Criteria					
Wetland Functions	Low Score	Moderate Score	High Score			
Water Quality Functions	3-4	5-7	8-9			
Hydrology Functions	3-4	5-7	8-9			
Habitat Functions	3-4	5-7	8-9			

#### 3.0 PROJECT AREA SETTING

#### 3.1 WATERSHED

The north portion of the property is located within the Squalicum Creek watershed and the south portion of the property is located within the Whatcom Creek watershed, both located within Water Resource Inventory Area (WRIA) 01.

Runoff from the southeast portion of the property drains eastward toward a biofiltration swale adjacent to a gravel trail, which drains southwest. City IQ mapping specifically labels this feature as the Woodside Biofiltration Swale BMP T9.20. Runoff from the southwest side of the property drains southward. Runoff from the northwest corner of the property flows northwest onto adjacent properties to the north and northwest.

#### 3.2 PROJECT VICINITY

The project site is located within an urban area of the City of Bellingham. Adjacent areas to the north, east, west, and south are developed with single-family homes. An undeveloped parcel (a mix of forest/shrub and herbaceous vegetation) is located to the southwest.

#### 3.3 REVIEW AREA

The review area consists of the entire tax parcel 380316 372176. While the entire parcel was reviewed, wetland boundaries on the west side of the property were not flagged – as they were a significant distance from any potential development on the east side of the property. The property consists of undeveloped forest dominated by Douglas fir (Pseudotsuga menziesii), big-leaf maple (Acer macrphyllum), red alder (Alnus rubra), and Western red-cedar (Thuja plicata). Three wetlands are located on the west side of the property and a steeply sloped hillside is located on the east half of the property. A gravel trail is located through the center of the property (north-south) with a biofiltration swale located on the west side of the trail. The biofiltration swale carries stormwater offsite to the south and into a larger stormwater facility. A site map is included in Appendix A. Site photographs are included in Appendix B.

#### 4.0 RESULTS

#### 4.1 PRELIMINARY RESEARCH

#### 4.1.1 National Wetland Inventory and CitylQ

A Palustrine forested wetland is mapped on the northwest corner of the property on the National Wetlands Inventory (NWI) Mapper (USFWS, 2017). The City of Bellingham IQ Mapper shows a large Palustrine forested wetland on the west side of the property, based on the 1992 wetland inventory. A wetland delineation from 2015 indicates the presence of a wetland in the vicinity that MES identified Wetlands A and B (City of Bellingham, 2018).

#### 4.1.2 Soils Survey Data

The western portion of the review area is mapped with Whatcom silt loam, 3 to 8-percent slopes (soil unit 179). The northeast portion of the review area is mapped with Squalicum gravelly loam, 5 to 15-percent slopes (soil unit 156), while the southeast portion is mapped with Squalicum gravelly loam, 15 to 30-percent slopes (soil unit 157) (NRCS, 2018). Whatcom and Squalicum soils are non-hydric (NRCS, 2014).

Figure 2: Soils Map



#### 4.1.3 WDFW Priority Habitats and Species Data

The Washington State Fish and Wildlife Priority Habitats and Species (PHS) Mapper identifies the entire township that includes the review area with Big Brown Bat (*Eptesicus fuscus*). WDFW also maps a wetland in the location shown on the NWI Mapper (WDFW, 2018).

### 4.1.4 City of Bellingham Habitat Restoration Technical Assessment

The City of Bellingham's 2015 Habitat Restoration Technical Assessment identifies the subject site within "Forest Block 149". This forest block is not identified as a top priority restoration area.

#### 4.2 FIELD INVESTIGATION

#### 4.2.1 Uplands

The eastern half of the property is dominated by upland area on a forested slope. Vegetation includes Douglas fir, Western red-cedar, red alder, big-leaf maple, vine maple (Acer circinatum), low Oregon-grape (Mahonia nervosa), snowberry (Symphoricarpos albus), red

huckleberry (Vaccinium parvifolium), sword fern (Polystichum munitum), bald-hip rose (Rosa gymnocarpa), and beaked hazelnut (Corylus cornuta).

Upland soils vary throughout the property, but generally consist of very dark brown (10YR 2/2) loam at the surface with dark yellowish brown (10YR 3/4) or very dark grayish brown (10YR 3/2) silt loam below. Upland data is documented in data plots (DP) 2, 4, 6, and 8 in **Appendix C**.

#### 4.2.2 Onsite Wetlands

Three wetlands, Wetlands A, B, and D were identified in the review area, in the western half of the property. The wetlands are summarized below in **Table 2**.

Table 2: Project Wetlands Summary

Wetland	Cowardin Classification	Ecology Category	HGM Class	Ecology Habitat Score	City of Bellingham Buffer Width (Feet) <sup>1</sup>
Α	PFO/PSS	Ш	Depressional	Moderate (5)	150
В	PFO	Ш	Depressional/Slope	Low (4)	80
D	PFO	IV	Slope	Low (4)	50

<sup>&</sup>lt;sup>1</sup>Assumes high intensity land use proposal – more than one unit per acre.

#### Wetland A

Wetland A is a large Palustrine forested and scrub/shrub, depressional wetland that extends throughout the southwest portion of the property and onto the adjacent property to the south. The wetland may also extend offsite to the west slightly. MES flagged the eastern wetland boundary and the western boundary was observed but not flagged. A prior wetland boundary for the east side of the wetland was utilized for mapping purposes (Cantrell and Associates, Inc.). The wetland and data point locations are shown on the attached site map in **Appendix A**.

**Vegetation**. Vegetation in Wetland A consists of Western red-cedar, red-osier dogwood (*Cornus sericea*), swamp currant (*Ribes lacustre*), black twinberry (*Lonicera involucrata*), salmonberry (*Rubus spectabilis*), skunk cabbage (*Lysichiton americanum*), and lady fern (*Athyrium felix-femina*).

**Hydrology**. At the time of the site visit in June 2018, Wetland A had a water table at -11 inches below the surface and saturation at -7 inches below the surface. The wetland is seasonally saturated and seasonally ponded, draining south through a culvert under Barkley Boulevard into a wetland on the south side of Barkley Boulevard. The wetland receives hydrology from surface and subsurface runoff from the property to the west. The wetland receives water runoff from adjacent upland areas, Wetland B and the biofiltration swale at several points just south of a culvert outlet to the biofiltration swale from the east – carrying stormwater from Chandler Parkway.

**Soils.** Soils in Wetland A consist of black (10YR 2/1) silt loam with redoximorphic concentrations from the surface to 17 inches depth. Below 17 inches, soils consist of dark

grayish brown (10YR 4/2) clay loam with redoximorphic concentrations and depletions. Soils in Wetland A meet hydric soil A12 – thick dark surface.

Wetland Rating. Wetland A is classified as a Palustrine forested and scrub/shrub wetland using the USFWS wetland classification system (Cowardin et al., 1979). Per the City of Bellingham Code the wetland was rated using the 2014 Ecology rating system (Hruby, 2014). The wetland received a total score of 18 points with a habitat score of five points (moderate). The wetland had no special characteristics and was rated as a Category III wetland using a functional score of 18. Wetland A requires a 150-foot buffer based on a proposed high intensity use.

#### Wetland B

Wetland B is located in the northeast portion of the property. The wetland is a Palustrine forested, depressional/slope wetland. The eastern boundary of the wetland was flagged by MES and surveyed by professional and use surveyors. MES visually observed the western but did not flag it. A prior delineated boundary by Cantrell and Associates, Inc.) was similar to the MES observed western boundary and was incorporated into the existing conditions map. The wetland and data point locations are shown on the attached site map in **Appendix A**.

**Vegetation**. Vegetation in Wetland A consists of red alder, Western red-cedar, black twinberry, salmonberry, lady fern, slough sedge (*Carex obnupta*), and water parsley (*Oenanthe sarmentosa*).

**Hydrology**. At the time of the site visit in June 2018, Wetland B had a water table at the surface. The wetland is seasonally saturated and seasonally ponded. The northern portion of the wetland drains northwest while a majority of the wetland drains south toward Wetland A. The wetland receives hydrology from surface and subsurface runoff from the property to the west. The wetland receives minimal runoff from the area to the east due the presence of a biofiltration swale that intercepts a majority of runoff from the hillside on the east side of the property.

**Soils**. Soils in Wetland B consist of black (10YR 2/1) clay loam from the surface to 17 inches depth. Below 17 inches, soils consist of dark grayish brown (10YR 4/2) clay loam with redoximorphic concentrations. Soils in Wetland B meet hydric soil A12 – thick dark surface.

Wetland Rating. Wetland B is classified as a Palustrine forested and scrub/shrub wetland using the USFWS wetland classification system (Cowardin et al., 1979). Per the City of Bellingham Code the wetland was rated using the 2014 Ecology rating system (Hruby, 2014). The wetland received a total score of 17 points with a habitat score of four points (low). The wetland had no special characteristics and was rated as a Category III wetland using a functional score of 17. Wetland B is required to have an 80-foot buffer based on a proposed high intensity use.

#### Wetland D

Wetland D is a small (447 square feet), Palustrine forested, slope wetland located in the northwest corner of the property. The wetland and data point locations are shown on the attached site map in **Appendix A**.

**Vegetation**. Vegetation in Wetland D consists of red alder, salmonberry, black twinberry, and lady fern.

**Hydrology**. At the time of the site visit in June 2018, Wetland D did not have observable hydrology. Wetland D is a seasonally saturated (in early spring) slope wetland. The wetland drains northwest onto adjacent properties. The wetland receives surface and subsurface runoff from the area to the east, including the northern end of Wetland B, and does not appear to receive stormwater runoff from Bristol Way (curbed and guttered), which is located just north of Wetland D.

Soils. Soils in Wetland D consist of black (10YR 2/1) loam from the surface to 10 inches depth. Below 17 inches, soils consist of dark grayish brown (10YR 4/2) loam with redoximorphic concentrations. Soils in Wetland D meet hydric soil A11 – depleted below surface.

Wetland Rating. Wetland D is classified as a Palustrine forested wetland using the USFWS wetland classification system (Cowardin et al., 1979). Per the City of Bellingham Code the wetland was rated using the 2014 Ecology rating system (Hruby, 2014). The wetland received a total score of 14 points with a habitat score of four points (low). The wetland had no special characteristics and was rated as a Category IV wetland using a functional score of 14. Wetland D is required to have a 50-foot buffer based on a proposed high intensity use.

#### 4.2.3 Fish and Wildlife Habitat Conservation Areas

#### Pileated Woodpecker

Priority habitats and areas associated with state priority species are considered habitat conservation areas under SCC 14.24.500(1)K. Pileated woodpecker (*Dryocopus pileatus*) is a candidate species in Washington State. Additionally, pileated woodpecker breeding areas are listed as a priority habitat. The breeding areas include areas necessary to support reproduction and the rearing of young, including breeding sites and adjacent foraging habitat.

This species is a year-round resident in Western Washington inhabiting forested areas that may include: mature, old-growth forests, and second-growth forests with large snags and fallen trees (Lewis and Azerrad, 2004). Large snags and large decaying live trees are necessary for nesting and roosting. Forests less than 40 years old may be utilized as foraging habitat.

The subject property is a mixed a coniferous and deciduous forest (Western red-cedar and Douglas fir). Several snags and decaying live trees were observed onsite and extending onto adjacent properties to the east. MES observed one live tree with evidence of Pileated woodpecker excavations, located at the southern end of the lot.

#### Priority Snags and Logs

Priority snags and logs are considered a habitat conservation area under WCC 16.16.710.C.3. as they are a state priority habitat. To qualify as a priority feature, snags must be more than 20 inches diameter at breast height (dbh) and 6.5 feet in height. Priority

logs must be more than 12 inches in diameter at the greatest width and more than 20 feet long. Several priority logs were observed on the property.

#### Mature Forest

WDFW defines a mature forest as one that has an average stand with trees exceeding 21 inches dbh that is more than 7.5 acres in size (WDFW, 2008). Several mature trees are located onsite; however, the patch of mature trees is less than four acres in size and includes only the eastern portion of the property. Therefore, mature forest, as defined by WDFW, does not occur on the property.

#### Bats

Priority habitats and areas associated with state priority species are considered habitat conservation areas under WCC 16.16.710(C)3, including Big Brown Bat.

A Big Brown Bat communal roost is mapped within the township that includes the subject property (WDFW, 2018). WDFW has a *Living with Wildlife: Bats* informational flyer and additional information on bats available at: <a href="https://wdfw.wa.gov/living/bats.html">https://wdfw.wa.gov/living/bats.html</a> (WDFW, 2018).

Bat roosting may occur onsite, although MES did not directly observe any roosting during a site visit in June.

### 4.2.4 Off-site (Adjacent) Critical Areas

Off-site areas were viewed as feasible given visibility conditions at the time of the site visit. Other information was used where applicable including aerial photography and CitylQ mapping to assess off-site conditions.

#### Off-site Areas- West

The area west of the property is partially developed with single-family residences, yards, and undeveloped small patches of forest. A majority of the area immediately west of the property consisted of upland forest similar to the upland forest between Wetlands A and B, and included Western red-cedar, red alder, salmonberry, vine maple, thimbleberry, Himalayan blackberry (*Rubus armeniacus*), snowberry (*Symphoricarpos albus*), Indian plum (*Oemleria cerasiformis*), and sword fern. Wetland A likely extends offsite to the west slightly, based on a wetland delineation by Cantrell and Associates, Inc. from CitylQ (City of Bellingham, 2018).

#### Off-site Areas- East

The general topography of the site and offsite areas to the east is a steep slope up to the east. Chandler Parkway is located along the east side of the property, in the northern half. Single-family homes and yards are located east of the property, in the southern half. No obvious wetlands were observed offsite to the east.

#### Off-site Areas- South

The area south of the property is currently under construction with single-family homes or is partially undeveloped forest, similar to the upland forest located in the eastern half of the property. Vegetation in this area includes Douglas fir (*Pseudotsuga menziesii*), big-leaf maple, red alder, baldhip rose (*Rosa gymnocarpa*), low Oregon-grape (*Mahonia nervosa*), snowberry, beaked hazelnut (*Corylus cornuta*), red huckleberry (*Vaccinium parvifolium*), and sword fern. No obvious wetlands were observed south of the property.

#### Off-site Areas- North

Bristol Way is located on the north side of the property.

#### 4.3 WETLAND FUNCTIONAL ASSESSMENT

Wetland functional value was assessed for utilizing the Ecology Wetland Rating Form for Western Washington (Hruby, 2014). This rating method evaluates wetlands based on three categories of function, which include water quality, hydrologic function, and habitat value.

Table 3: Wetland Functional Value Summary<sup>1</sup>

		<u> </u>	
Wetland	Water Quality Function	Hydrologic Function	Habitat Function
Α	Moderate (7)	Moderate (6)	Moderate (5)
В	Moderate (7)	Moderate (6)	Low (4)
D	Moderate (5)	Moderate (5)	Low (4)

<sup>&</sup>lt;sup>1</sup>Raw functional value scores included in parentheses

### 4.3.1 Water Quality Function

Water quality function is assessed by characterizing the amount and type of vegetation present within a wetland. Plants enhance sedimentation by acting like a filter causing sediment particles to drop to the wetland surface. Other variables include the average slope within slope wetlands, outlet type, and amount of seasonal ponding within depressional wetlands. The potential for the landscape to support water quality functions is also assessed, including potential pollutant sources from stormwater septic systems or other sources. Additionally, water quality value to society is assessed based on the wetland's proximity to polluted waterbodies, with the assumption that wetlands can improve water quality before reaching downstream waterways.

Wetlands A, B, and D provide moderate water quality functions. Wetlands A and B have the potential to provide water quality functions with seasonally flowing outlets, persistent vegetation, and seasonally ponded areas. The wetlands are located in a landscape that contributes runoff from developed areas, particularly Wetland A, which receives direct stormwater runoff via a biofiltration swale that spills into the wetland. Wetlands A and B are located in the Whatcom Creek watershed and drain into Fever Creek, which is listed on the 303(d) list for poor water quality. As a result, the water quality functions provided by these wetlands are considered valuable to society.

Wetland D has limited potential to provide water quality functions, due to the slope of the wetland (more than five percent), and lack of runoff into the wetland from pollutant sources.

However, the wetland drains to Squalicum Creek, which is listed on the 303(d) list for poor water quality, thereby increasing the rated value to society for water quality improvement.

#### 4.3.2 Hydrologic Function

Wetlands have the ability to reduce flooding and stream erosion in downstream areas. This is accomplished through the entrainment, storage, and slow release of water, which acts to moderate flood pulses following storm events. Characteristics of this function include the vegetation characteristics (reduction of water velocity in slope wetlands), outlet type, and depth of storage for depressional wetlands. Hydrologic function is also influenced by the landscape and input of potential stormwater discharges and excess runoff from urban and developed areas. The hydrologic function of a wetland is also assessed in relation to its value to society. Wetlands that are located upstream of flood zones may help reducing flooding and protect down-gradient resources (human or natural).

Wetlands A and B provide moderate hydrologic functions. These wetlands have the potential to reduce flooding and erosion with seasonally flowing outlets, shallow ponding capacity, and small to medium-sized contributing basins. Both wetlands have the potential to support hydrologic functions as they receive stormwater runoff. Additionally, the contributing basin for Wetland A includes developed/urban areas that generate excess runoff. Wetland A receives stormwater runoff directly from a biofiltration swale that captures runoff from the residential development to the north and Chandler Way to the east.

Wetland D provides moderate hydrologic function – though at a lower level than Wetlands A and B. While the wetland contains dense woody vegetation that may intercept runoff, the wetland does not intercept runoff from developed areas.

#### 4.3.3 Habitat Function

Wetlands can provide habitat value to a variety of wildlife species by providing a variety of habitat types, water regimes, habitat features (such as snags and downed logs), and number of plant species. Additionally, the wetland's opportunity to provide habitat is important, as characterized by buffer condition, corridors and connections, position in the landscape, and proximity to priority habitats and undisturbed habitat.

Wetland A provides moderate habitat function. The wetland has two habitat types (forest and scrub/shrub), two hydroperiods, moderate habitat interspersion, and habitat features including snags and logs. The landscape within one kilometer of the wetland has very little potential to support habitat functions of the wetland, due to the presence of dense urban development.

Wetlands B and D provide low habitat function, due to one habitat type (forest), one or two hydroperiods, and no habitat interspersion. These wetlands also lack accessible habitat within one kilometer due to their location within a dense urban area.

## 5.0 REGULATORY REQUIREMENTS

The wetlands identified on the property are subject to federal regulations under the Clean Water Act (CWA) Sections 404 and 401, as well as state regulations under the Growth

Management Act administered by the City of Bellingham under the Critical Areas Chapter (BMC 16.55).

#### 5.1 CWA SECTION 404- US ARMY CORPS OF ENGINEERS

Pursuant to Section 404 of the CWA, the Corps regulates the discharge of dredged and/or fill material into waters of the United States, including wetlands. Any impacts to onsite wetlands would require a Nationwide Permit (for up to 0.5 acre of wetland fill) or an Individual Permit (for greater than 0.5 acre of wetland fill).

#### 5.2 CWA SECTION 401- DEPARTMENT OF ECOLOGY

Ecology is the state agency responsible for administering the CWA Section 401 Water Quality Certification program. Impacts to wetlands may require approval or a waiver from the Department of Ecology.

#### 5.3 CRITICAL AREAS ORDINANCE- CITY OF BELLINGHAM

The City of Bellingham regulates critical areas, including wetlands and their associated buffers, and fish and wildlife habitat conservation areas under Title 16, Chapter 55 of the Bellingham Municipal Code. Impacts to wetlands and buffers require a Critical Areas Permit and compensatory mitigation. Buffer widths are determined based on the proposed land use intensity, wetland category, and habitat score. Wetland A requires a 150-foot buffer, Wetland B requires an 80-foot buffer, and Wetland D requires a 50-foot buffer. With appropriate mitigation sequencing, the Wetland A buffer may be reduced by 25-percent, to 112.5 feet; the Wetland B buffer may be reduced to 60 feet; and the Wetland D buffer may be reduced to 40 feet. The City of Bellingham Code (BMC 16.55.340.G) also requires a 15-foot building setback from buffers.

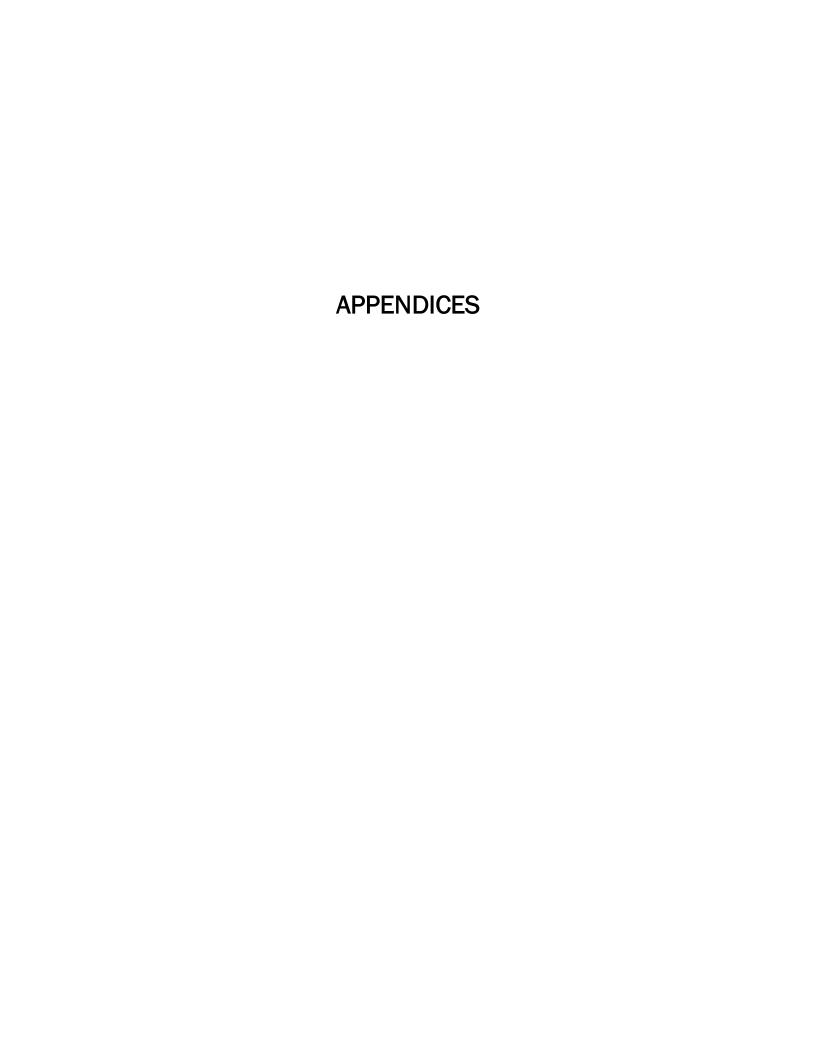
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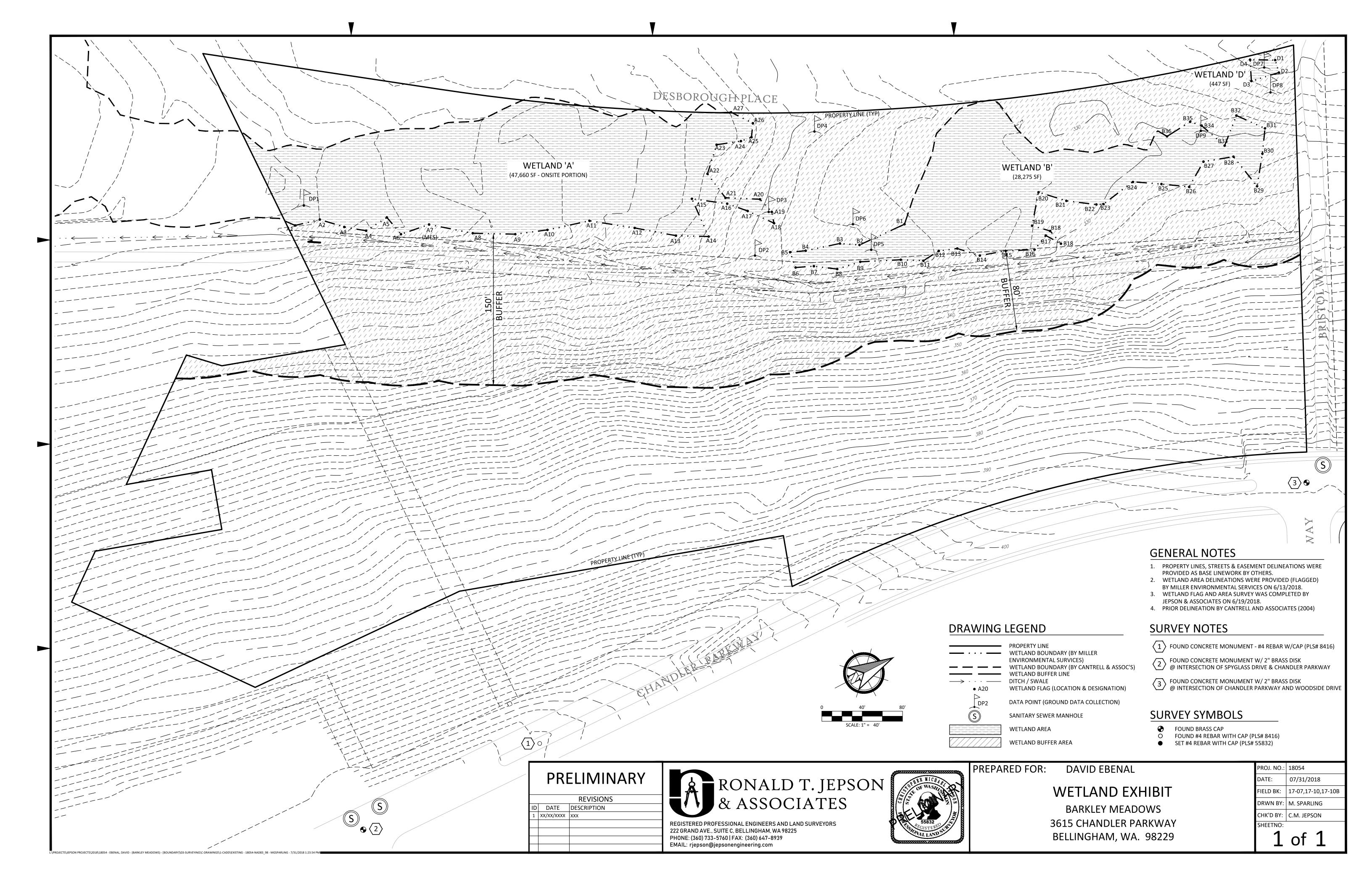
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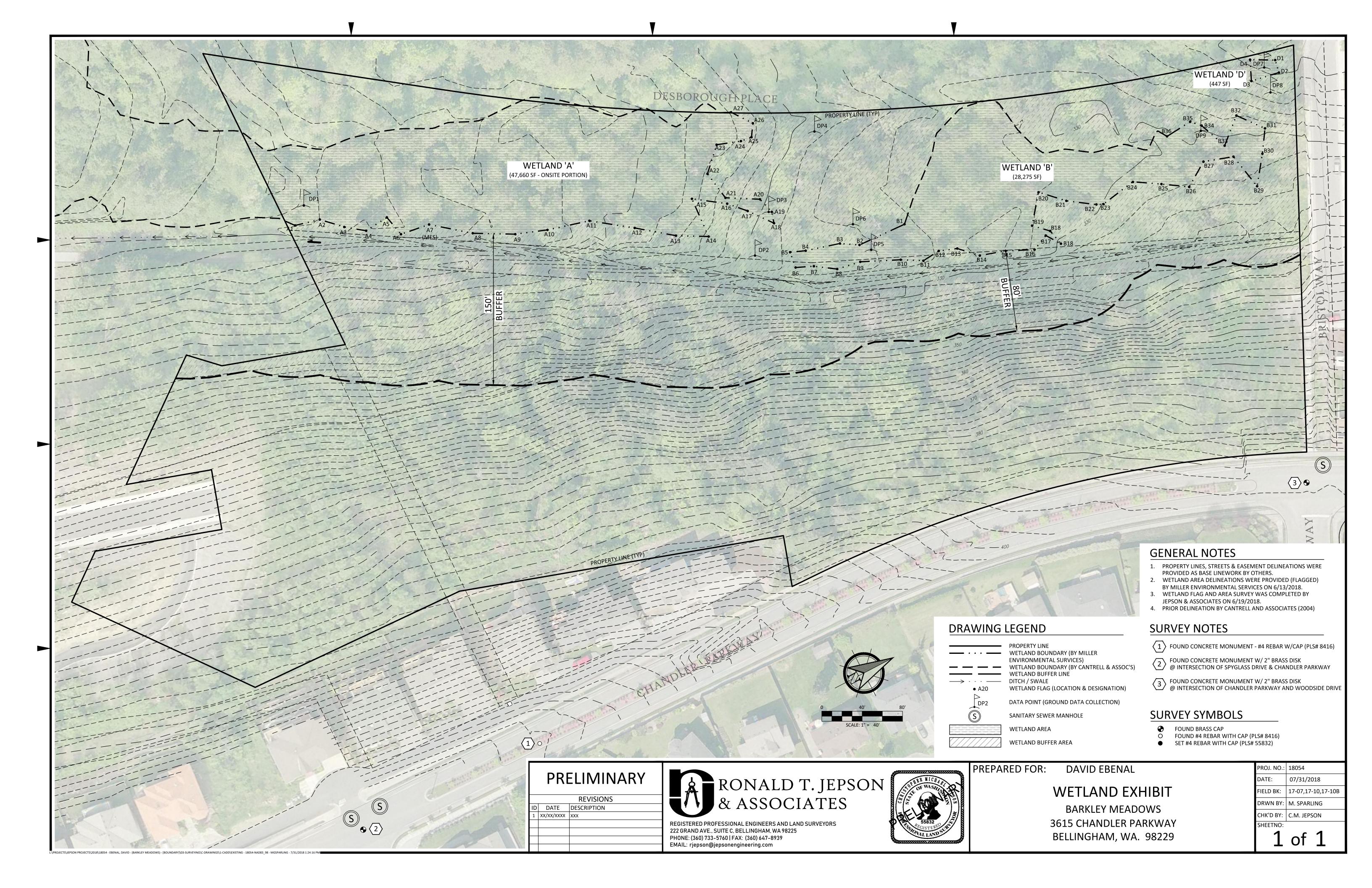
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# Appendix A Existing Conditions Map





# Appendix B Site Photographs



Photo 1. View north along the northern portion of the biofiltration swale on the property (6/13/18).



Photo 2. View north along the biofiltration swale at the south end of the property (6/13/18).

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Photo 3. View west into Wetland A from the biofiltration swale near the south end of the property (6/13/18).



Photo 4. View southwest into Wetland A from near the northwest side of the wetland (6/13/18).

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Photo 5. View west into upland area between Wetlands A and B (6/13/18).



Photo 6. View west across the south end of Wetland B from the east side of the wetland (6/13/18).

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Photo 7. View south into Wetland B from the north edge of the wetland (6/13/18).



Photo 8. View northwest into Wetland D from the southeast side of the wetland (6/13/18).

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Photo 9. View north along the upland slope on the northeast side of the property (6/13/18).



Photo 10. View south along the upland slope in the southeast portion of the property (6/13/18).

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# Appendix C Wetland Data Forms

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

Project/Site: Barkley Meada	Cit	y/County: Be	llinaham	Sampling Date: 0-13-1
Applicant/Owner: Pomintan Susta	mable Pers	1.600.	State: WA	Sampling Point: DP-1
Investigator(s): E. Miller, L. Hans				
Landform (hillslope, terrace, etc.): Hillslope				
Subregion (LRR): A				
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typi				
Are Vegetation, Soil, or Hydrology			rmal Circumstances" pres	
Are Vegetation, Soil, or Hydrology			ed, explain any answers in	
SUMMARY OF FINDINGS - Attach si		-		•
Hydrophytic Vegetation Present? Yes 🗓				
Hydric Soil Present? Yes 🗸	No []	Is the Sample		
Wetland Hydrology Present? Yes	No 🗆	within a Wetla	nnd? Yes 🗹	No ∐
Remarks: Wetland A, in 50 N20' West of 600 VEGETATION - Use scientific names	cuele	sile, r	near sonth	prop line,
	Absolute Do	minant Indicator	Dominance Test work	ksheet:
Tree Stratum (Plot size:)		pecies? Status	Number of Dominant S	pecies —
1. Thuja plicata		K FAC	That Are OBL, FACW,	or FAC: (A)
2. Annus mbra			Total Number of Domir Species Across All Stra	_
4				
Sapling/Shrub Stratum (Plot size:)	<u>                                      </u>	Total Cover	Percent of Dominant S That Are OBL, FACW,	
1. Comus cericea		X FAC	Prevalence Index wor	ksheet:
2. Acer circinatum			Total % Cover of:	Multiply by:
3			OBL species	x1=
4			FACW species	x 2 =
5				x3=
Herb Stratum (Plot size:)	<u> 60 =                                  </u>	Total Cover		x4=
1. Atnryum felix femin	a 20 \	FAT	UPL species	x 5 =
2			Column Totals:	(A) (B)
3			Prevalence Index	= B/A =
4.			Hydrophytic Vegetation	on Indicators:
5.			Rapid Test for Hydr	ophytic Vegetation
6			☑ Dominance Test is:	>50%
7.			Prevalence Index is	
8			Morphological Adap	otations <sup>1</sup> (Provide supporting s or on a separate sheet)
9			☐ Wetland Non-Vascu	
10				hytic Vegetation¹ (Explain)
11.	3 ~		1Indicators of hydric soil	and wetland hydrology must
Woody Vine Stratum (Plot size:)	<u> </u>	Fotal Cover	be present, unless distu	rbed or problematic.
1.			Hydrophytic	
2			Vegetation	. E/ E
% Bare Ground in Herb Stratum	= î	otal Cover	Present? Yes	s [☑ No []
Remarks: passes dominance				
, was a series of the production	- 1 241			

High Water Table (A2)  1, 2, 4A, and 4B)  4A, and 4B)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  1, 2, 4A, and 4B)  4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Dry-Season Water Table (C2)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Fac-Neutral Test (D3)  Recent Iron Reduction in Tilled Soils (C6)  Fac-Neutral Test (D5)  Stunted or Stressed Plants (D1) (LRR A)  Frost-Heave Hummocks (D7)  Frost-Heave Hummocks (D7)	(inches) Color (moist) 0-12"  07K2 1 12-17"  07K2 1				sence of indicators.)
D-12*   DYR-21   DD   DYR-312   DD   TH   CLC	D-12" 10/12/1	<u> </u>	Redox Features	2	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   **Location: PL=Pore Lining, M=Matrix.   Hydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Problematic Hydric	12-17" 104×211	. <u> </u>	color (moist) % Type' Loc		
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.   Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Histosoi (A1)	-	<u> 120 -</u>			
Trype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains.   **Location: PL=Pore Lining, M=Matrix, bydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Histosoid (A1)   Sandy Redox (S5)   2 cm Muck (A10)   Histosoid (A2)   Stripped Matrix (S6)   Red Parent Material (TF2)   Silick (Pas)   Learny Mucky Mineral (F1) (except MLRA 1)   Very Shallow Dark Surface (F12)   Hydrogen Suffide (A4)   Learny Blocky Mineral (F1) (except MLRA 1)   Very Shallow Dark Surface (F12)   Depleted Below Dark Surface (A11)   Depleted Matrix (F2)   Depleted Delow Dark Surface (A12)   Redox Depressions (F6)   **Indicators of hydrophytic vegetation and welland hydrology must be present, unless disturbed or problematic.   Restrictive Layer (If present):   Type:	1		O4K315 10 D L	<u>1 C</u>	Llo
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coaled Sand Grains. "Location: PL=Pore Lining, M=Matrix, bydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	17+ 104R412	90	1048314 10 C F	1 06	Lo
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri		<del>_</del>			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri		<del>_</del>			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri		<del></del>			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri					
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)   Indicators for Problematic Hydric Soils*:   Indicators for Muck (A10)   Indicators for Muck (A10)   Indicators for Muck Surface (F1)   Indicators for Hydric Soils*:   Indicators for Hydric Hydric Soils*:   Indicators for Hydric Hydri	<sup>1</sup> Type: C=Concentration, D=I	Depletion, RM=F	Reduced Matrix, CS=Covered or Coated Sa	nd Grains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Histic Epipedon (A2)	Hydric Soil Indicators: (App	plicable to all L	RRs, unless otherwise noted.)	li	ndicators for Problematic Hydric Soils <sup>3</sup> :
Black Histic (A3)	l				2 cm Muck (A10)
Hydrogen Sulfide (A4)	☐ Histic Epipedon (A2)	Ε	☐ Stripped Matrix (S6)		
Depleted Below Dark Surface (A11)				,	· · · · · · · · · · · · · · · · · · ·
Trick Dark Surface (A12)			* *	. L	J Other (Explain in Remarks)
Sandy Mucky Mineral (S1)	1 — / ·		_ · · · ·	3	Indicators of hydrophytic vagotation and
Sandy Gleyed Matrix (S4)	1				* * * -
Restrictive Layer (if present): Type:	1 -	•	•		• •
Type:					
Hydric Soil Present? Yes   No	· ·				
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Salt Crust (B11)  Water Marks (B1)  Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Sultration Visible on Aerial Imagery (B7)  Stunted or Stressed Plants (D1) (LRR A)  Field Observations:  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Frost-Heave Hummocks (D7)				Hydi	ric Soil Present? Yes ⊠ No □
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Presence of Reduced Iron (C4)  Iron Deposits (B5)  Recent Iron Reduction in Tilled Solls (C6)  Surface Soil Cracks (B6)  Sundation (A3)  Cyditared Rhizospheres along Living Roots (C3)  Recent Iron Reduction in Tilled Solls (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Field Observations:	Romarke:				
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Ceaves (B9) (except MLRA  Algal Mat A4, and 4B)  Drainage Patterns (B10)  Drainage Patterns (B10	Mects	A12			
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Claves (B9) (except MLRA  Alage Mater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Claves (B13)  Oxidized Rhizospheres (B13)  Presence of Reduced Iron (C1)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:					
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Claves (B9) (except MLRA  Algal MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Feason Water Table (C2)  Drainage Patterns (B10)  Drainage Patterns (B10)  Feason Water Table (C2)  Drainage Patterns (B10)		•			
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Claves (B9) (except MLRA  Alage Mater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Hydrogen Sulfide Claves (B13)  Oxidized Rhizospheres (B13)  Presence of Reduced Iron (C1)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Other (Explain in Remarks)  Frost-Heave Hummocks (D7)  Field Observations:					
Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  Water-Stained Leaves (B9) (except MLRA  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Hydrogen Sulfide Odor (C1)  Drift Deposits (B3)  Oxidized Rhizospheres along Living Roots (C3)  Horn Deposits (B5)  Recent Iron Reduction in Tilled Soils (C6)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Sparsely Vegetated Concave Surface (B8)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Valer Stained Leav	HYDROLOGY				
Surface Water (A1)  ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ 1, 2, 4A, and 4B) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Hydrogen Sulfide Odor (C4) ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Surface Soil Cracks (B6) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Drainage Patterns (B10) ☐ Dray-Season Water Table (C2) ☐ Dry-Season Water Table (C2) ☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ FAC-Neutral Test (D5) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ FAC-Neutral Test (D5) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Frost-Heave Hummocks (D7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Field Observations:	Wetland Hydrology Indicate	rs:			
High Water Table (A2)		of one required;			
Saturation (A3) Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9 Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Horn Deposits (B5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)  Saturation Visible on Aerial Imagery (C9 Geomorphic Position (D2) Saturation Visible on Aerial Imagery (B7) Stunted or Stressed Plants (D1) (LRR A) Field Observations:	Primary Indicators (minimum		check all that apply)		Secondary Indicators (2 or more required)
☐ Water Marks (B1)       ☐ Aquatic Invertebrates (B13)       ☐ Dry-Season Water Table (C2)         ☐ Sediment Deposits (B2)       ☐ Hydrogen Sulfide Odor (C1)       ☐ Saturation Visible on Aerial Imagery (C9         ☐ Drift Deposits (B3)       ☐ Oxidized Rhizospheres along Living Roots (C3)       ☑ Geomorphic Position (D2)         ☐ Algal Mat or Crust (B4)       ☐ Presence of Reduced Iron (C4)       ☐ Shallow Aquitard (D3)         ☐ Iron Deposits (B5)       ☐ Recent Iron Reduction in Tilled Soils (C6)       ☐ FAC-Neutral Test (D5)         ☐ Surface Soil Cracks (B6)       ☐ Stunted or Stressed Plants (D1) (LRR A)       ☐ Raised Ant Mounds (D6) (LRR A)         ☐ Inundation Visible on Aerial Imagery (B7)       ☐ Other (Explain in Remarks)       ☐ Frost-Heave Hummocks (D7)         ☐ Sparsely Vegetated Concave Surface (B8)				t MLRA	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
□ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)       □ Saturation Visible on Aerial Imagery (C9         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roots (C3)       ☑ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)       □ Shallow Aquitard (D3)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)       □ FAC-Neutral Test (D5)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)       □ Raised Ant Mounds (D6) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)       □ Frost-Heave Hummocks (D7)         □ Sparsely Vegetated Concave Surface (B8)	Surface Water (A1)		☐ Water-Stained Leaves (B9) (except	t MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
□ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roots (C3)       □ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)       □ Shallow Aquitard (D3)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)       □ FAC-Neutral Test (D5)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)       □ Raised Ant Mounds (D6) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)       □ Frost-Heave Hummocks (D7)         □ Sparsely Vegetated Concave Surface (B8)	Surface Water (A1)  M High Water Table (A2)		☐ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)	t MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
☐ Algal Mat or Crust (B4) ☐ Presence of Reduced Iron (C4) ☐ Shallow Aquitard (D3) ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ FAC-Neutral Test (D5) ☐ Surface Soil Cracks (B6) ☐ Stunted or Stressed Plants (D1) (LRR A) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Frost-Heave Hummocks (D7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)		<ul><li> Water-Stained Leaves (B9) (except</li><li>1, 2, 4A, and 4B)</li><li> Salt Crust (B11)</li></ul>	t MLRA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2)
☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ FAC-Neutral Test (D5) ☐ Surface Soil Cracks (B6) ☐ Stunted or Stressed Plants (D1) (LRR A) ☐ Raised Ant Mounds (D6) (LRR A) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Frost-Heave Hummocks (D7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)		Water-Stained Leaves (B9) (MLRA 1, 2,
□ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR A) □ Raised Ant Mounds (D6) (LRR A) □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Frost-Heave Hummocks (D7) □ Sparsely Vegetated Concave Surface (B8) Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living		Water-Stained Leaves (B9) (MLRA 1, 2,
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Frost-Heave Hummocks (D7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)	g Roots (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)
☐ Sparsely Vegetated Concave Surface (B8) Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soil	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)
Field Observations:	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soil     □ Stunted or Stressed Plants (D1) (LF)	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeri		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soil     □ Stunted or Stressed Plants (D1) (LF	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
L Surface Motor Brosont? Voe 🗔 No M. Denth (inches):	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeri		□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soil     □ Stunted or Stressed Plants (D1) (LF	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeri	cave Surface (B8	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soil     □ Stunted or Stressed Plants (D1) (LE □ Other (Explain in Remarks)	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
	Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aeri	eave Surface (B8	□ Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soll Stunted or Stressed Plants (D1) (LF □ Other (Explain in Remarks)   Depth (inches):	g Roots (C3) s (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
	Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeri Sparsely Vegetated Conc	Yes No	Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (LF Other (Explain in Remarks)  Depth (inches):	g Roots (C3) is (C6) RR A)	Water-Stained Leaves (B9) (MLRA 1, 2,
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aeri Sparsely Vegetated Conc Field Observations: Surface Water Present? Water Table Present? Saturation Present?	Yes M No [	Water-Stained Leaves (B9) (except 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soil Stunted or Stressed Plants (D1) (LF Other (Explain in Remarks)  Depth (inches):	g Roots (C3) is (C6) RR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)     Drainage Patterns (B10)     Dry-Season Water Table (C2)     Saturation Visible on Aerial Imagery (C9)     Geomorphic Position (D2)     Shallow Aquitard (D3)     FAC-Neutral Test (D5)     Raised Ant Mounds (D6) (LRR A)
	□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aeri □ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Remarks: Call Call Call	□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aeri □ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Remarks: Soil saturated at -7" in June	□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aeri □ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe) Describe Recorded Data (stree	Yes ☐ No [ Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A)  Wetland Hy ions), if availa	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
	□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aeri □ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe) Describe Recorded Data (stree	Yes ☐ No [ Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A) Wetland Hy ions), if availa	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
	□ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Surface Soil Cracks (B6) □ Inundation Visible on Aeri □ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? (includes capillary fringe) Describe Recorded Data (stree	Yes ☐ No [ Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A) Wetland Hy ions), if availa	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Remarks: Cont Cathacatta at 71" Tanat	☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Surface Soil Cracks (B6) ☐ Inundation Visible on Aeri ☐ Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes ☑ No [ Yes ☑ No [ Yes ☑ No [		g Roots (C3) s (C6) RR A) Wetland Hy	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)

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

Project/Site: Barkley Meadows	Ci	ty/County: <u>Be</u>	11ingham Sampling Date: 0-13-11
Applicant/Owner: Domintan Sustains	able Dev	el. Corp.	State: WA Sampling Point: DP-2
			Township, Range: Sec 16, T38N, RD3 E
Landform (hillslope, terrace, etc.): Hillslope	L	ocal relief (concav	re, convex, none): YDVV Slope (%):
			Long: Datum:
			NWI classification: upland
Are climatic / hydrologic conditions on the site typical for	r this time of year?	Van III No II	//fine overlain in Departure)
Are Vegetation, Soil, or Hydrology s			
			ormal Circumstances" present? Yes ☑ No ☐
Are Vegetation, Soil, or Hydrology no			ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sa	ampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No	র্ভ	la tha Daniela	44.0
Hydric Soil Present? Yes ☐ No	☑′	Is the Sample	,
Wetland Hydrology Present? Yes ☐ No		within a Wetla	
delineated as M by others  VEGETATION - Use scientific names of p		and sov in-hydric	etr of wetland B. Prenously
	Absolute Da	ominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover S</u>	pecies? Status	Number of Dominant Species
1. Aler nacrophyllum 2. Alnus nubra		X EVCM	That Are OBL, FACW, or FAC:(A)
2. MINUS MOVA	40	* TAL	Total Number of Definitions
3			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size:)	60 =	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:
1. Rubus ameniacus	70	× FAC	Prevalence Index worksheet:
2. Simbicus racemosa	20	× FACU	Total % Cover of: Multiply by:
3			OBL speciesx1 =
4			FACW species x2=
5			FAC species x 3 =
	10 =	Total Cover	FACU species x4 =
Herb Stratum (Plot size:)			UPL species x 5 =
1 2.			Column Totals: (A) (B)
2.	<del> </del>		Drovolongo Indov. = DIA =
4			Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:
5		<del></del>	Rapid Test for Hydrophytic Vegetation
6.			Dominance Test is >50%
7			☐ Prevalence Index is ≤3.0¹
8	<del></del>	<del></del>	☐ Morphological Adaptations¹ (Provide supporting
9.			data in Remarks or on a separate sheet)
10			☐ Wetland Non-Vascular Plants¹
11			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)		Fotal Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		<del> </del>	Lhedronhuite
2			Hydrophytic Vegetation
% Bare Ground in Herb Stratum	<i>D</i> = 1	otal Cover	Present? Yes □ No ☑

Profile Des	cription: (Describe	to the depth	needed to docu	ment the	indicator	or confirm	n the ab	sence of Indicators.)
Depth	Matrix		Red	ox Feature	<u>s</u> _ 1		<i>- :</i>	D
(inches)	Color (moist)		lor (moist)	%	Type.	_Loc <sup>2</sup>	Textur	
0-10'	104R2/1	<u> 150 _</u>						-0
10-16-	10/R312_	95	NR314	5	<u></u>	<u>r1</u> _	Chi	Lo
			·					
		. —						
	<del></del>	·		<del></del>				
		. <del></del>					-	
¹Type: C=C	Concentration, D=De	oletion, RM=Re	educed Matrix, C	S=Covere	d or Coat	ed Sand Gr	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless oth	erwise not	ed.)		In	idicators for Problematic Hydric Soils <sup>3</sup> :
☐ Histosol			Sandy Redox (					2 cm Muck (A10)
☐ Histic E	pipedon (A2)		Stripped Matrix	(S6)				Red Parent Material (TF2)
☐ Black H	istic (A3)	_	Loamy Mucky	•		MLRA 1)		Very Shallow Dark Surface (TF12)
	en Sulfide (A4)		Loamy Gleyed		)			Other (Explain in Remarks)
	d Below Dark Surfac		Depleted Matri				3ı	adjusters of hydrophytic varieties and
	ark Surface (A12)		Redox Dark St		7)		TI.	ndicators of hydrophytic vegetation and wetland hydrology must be present,
	vlucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark Redox Depress	•	1)			unless disturbed or problematic.
	Layer (if present):	<u>_</u>	Tredox popios	310113 (7 0)		<u> </u>	1	41,000 01044 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Type:	Eafer (ii present):							
1	nches):		_				Hydri	ic Soil Present? Yes □ No
							<u> </u>	
Remarks: Does not meet hydric soil indicators - redox below 8",								
J								
		•						
HYDROLC	OGY							
Wetland Hy	drology Indicators							
Primary Indi	icators (minimum of	one required; o	heck all that app	oly)				Secondary Indicators (2 or more required)
☐ Surface	Water (A1)		☐ Water-Sta	ined Leave	es (B9) (e	xcept MLR	RA.	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ater Table (A2)		1, 2, 4	A, and 4B	)			4A, and 4B)
☐ Saturati	on (A3)		☐ Salt Crust	(B11)				☐ Drainage Patterns (B10)
☐ Water N	farks (B1)		☐ Aquatic In					☐ Dry-Season Water Table (C2)
☐ Sedime	nt Deposits (B2)		Hydrogen					Saturation Visible on Aerial Imagery (C9)
☐ Drift De	posits (B3)		☐ Oxidized	•	_			Geomorphic Position (D2)
_	at or Crust (B4)		Presence		_	-		Shallow Aquitard (D3)
☐ Iron De	• •		☐ Recent in					FAC-Neutral Test (D5)
l .	Soil Cracks (B6)		☐ Stunted o		•	1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
. —	ion Visible on Aerial I		Other (Ex	plain in Re	marks)			☐ Frost-Heave Hummocks (D7)
	y Vegetated Concave	Surface (B8)						
Field Obse			<b>-</b>			- 1		
		′es 🔲 No 🖸						
Water Table			Depth (inche	s):/				
Saturation F		′es 🗹 No 🗆	Depth (inche	s):(	3	Wetla	and Hyd	drology Present? Yes ☐ No ☐
Describe Re	apillary fringe) ecorded Data (strean	gauge, monit	oring well, aerial	photos, pr	evious in	spections),	if availat	ble:
	,	J J						
Remarks:	Soils s		-0 1 . 1	٠.	11	<b>\</b>		60 astra - 10-11
1.0	20117 E	010101	ra at	16	p " "	TOW	γc6	cent rainfall,
	but does	s not	nect	wh h	ydro			
but does not next wh hydro								
					•			

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

Project/Site: Barkley Meadows	(	City/County: <u>Be</u>	11ingham Sampling Date: 6-13-1
Applicant/Owner: Pomintan Sustainal	le Der	rel. corp.	state: WA Sampling Point: DV-3
			Township, Range: Sec 16, TB&N, RO3 E
			/e, convex, none): Slope (%): 2 - 3
			Long: Datum:
			NWI classification: PFO, WAA
re climatic / hydrologic conditions on the site typical for th			
re Vegetation, Soil, or Hydrology sign			
			ormal Circumstances" present? Yes ☑ No ☐
re Vegetation, Soil, or Hydrology natur			ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing s	sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☐		10.45	
Hydric Soil Present? Yes ♥ No □		Is the Sample	
Wetland Hydrology Present? Yes ☑ No □			
Remarks: Wetland A - finger Dp-2,	at n	orth end	of wetland, west of
EGETATION – Use scientific names of plan	nts.		
Tree Stratum (Plot size: )		Dominant Indicator	Dominance Test worksheet:
		Species? Status	Number of Dominant Species That Are OBL, FACW, or FAC:  (A)
			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata: Z (B)
Sapling/Shrub Stratum (Plot size:)		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
. Rubus armeniacus	_ (CO	X FAC	Prevalence index worksheet:
. Acer circulatura	5	EAL	Total % Cover of: Multiply by:
. Rubus spectables	_10	FAL	OBL species x1 =
			FACW species x 2 =
			FAC species x 3 =
och Chrotism /Disk size.		= Total Cover	FACU species x4 =
lerb Stratum (Plot size:) . At winn felix femora	7.	Y GAT.	UPL species x5 =
THE TOTAL PROPERTY OF THE PARTY	- Los	* ()(E)	Column Totals: (A) (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			☐ Rapid Test for Hydrophytic Vegetation
			Dominance Test is >50%
			☐ Prevalence index is ≤3.0¹
			☐ Morphological Adaptations¹ (Provide supporting
			data in Remarks or on a separate sheet)
).			☐ Wetland Non-Vascular Plants¹
			☐ Problematic Hydrophytic Vegetation¹ (Explain)
oody Vine Stratum (Plot size:)	=	Total Cover	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Hudanatada
			Hydrophytic Vegetation
			1 :
Bare Ground in Herb Stratum		Total Cover	Present? Yes ☑ No ☐

			pth needed to document the indicator or			•
Depth	Matrix		Redox Features			
(inches) Color	(moist)	%	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-6" 10Y	12212	100			Loan	
10-14" 20	~Y 2 1~	90	10/R3/4 10 C	M	CLia	
4 11	1. 0.1 4		11/10/4 10 0	<u> </u>		
	•					
						***************************************
			=Reduced Matrix, CS=Covered or Coated	Sand Gra	ains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicat	ors: (Applic	able to al	LRRs, unless otherwise noted.)		Indicate	ors for Problematic Hydric Solls <sup>3</sup> :
☐ Histosol (A1)			☐ Sandy Redox (S5)		☐ 2 cm	n Muck (A10)
☐ Histic Epipedon	(A2)		☐ Stripped Matrix (S6)			Parent Material (TF2)
☐ Black Histic (A3	•		☐ Loamy Mucky Mineral (F1) (except Mi	LRA 1)		y Shallow Dark Surface (TF12)
☐ Hydrogen Sulfic			Loamy Gleyed Matrix (F2)		☐ Oth	er (Explain in Remarks)
☐ Depleted Below		(A11)	☑ Depleted Matrix (F3)		3, ,, ,	Charter doubt a second after a second
☐ Thick Dark Surf		•	Redox Dark Surface (F6)			ors of hydrophytic vegetation and
☐ Sandy Mucky M			Depleted Dark Surface (F7)			and hydrology must be present, ss disturbed or problematic.
Sandy Gleyed N Restrictive Layer (			Redox Depressions (F8)		Uille	ss disturbed of problematic.
l						
Depth (inches):_					Illustria Cal	I Present? Yes ☑ No □
Deptil (ilicites)					Hydric Soi	Present? Yes M NO L
Remarks:	1eets	ス				
·						*
İ						
HYDROLOGY						
Wetland Hydrology						
Wetland Hydrology		ne require	d; check all that apply)		Seco	ndary Indicators (2 or more required)
Wetland Hydrology	minimum of o	ne require	d; check all that apply)  ☐ Water-Stained Leaves (B9) (exce	ept MLR		ndary Indicators (2 or more required) /ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators (	minimum of o	ne require		ept MLR		
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab	minimum of o	ne require	☐ Water-Stained Leaves (B9) (exception)	pt MLR	A U	/ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Primary Indicators ( ☐ Surface Water (	minimum of o A1) le (A2)	ne require	☐ Water-Stained Leaves (B9) (exceeds, 2, 4A, and 4B)	ept MLR	A □ W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab Saturation (A3)	minimum of or A1) le (A2) 1)	ne require	☐ Water-Stained Leaves (B9) (exce 1, 2, 4A, and 4B) ☐ Salt Crust (B11)	ept MLR	A D W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10)
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab Saturation (A3) Water Marks (B	minimum of or A1) le (A2) 1) sits (B2)	ne require	<ul><li></li></ul>		A U W	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2)
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (E	minimum of or A1) le (A2) 1) sits (B2) (3)	ne require	<ul> <li>□ Water-Stained Leaves (B9) (excess</li> <li>1, 2, 4A, and 4B)</li> <li>□ Salt Crust (B11)</li> <li>□ Aquatic Invertebrates (B13)</li> <li>□ Hydrogen Sulfide Odor (C1)</li> </ul>		A □ W □ D □ D □ S S (C3) □ G	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2)
Wetland Hydrology Primary Indicators (i Surface Water (i High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (E Algal Mat or Cru	minimum of or A1) le (A2) 1) sits (B2) ist (B4)	ne require	<ul> <li>□ Water-Stained Leaves (B9) (excertions)</li> <li>□ 1, 2, 4A, and 4B)</li> <li>□ Salt Crust (B11)</li> <li>□ Aquatic Invertebrates (B13)</li> <li>□ Hydrogen Sulfide Odor (C1)</li> <li>□ Oxidized Rhizospheres along Living</li> </ul>	ing Roots		/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) ist (B4) 5)	ne require	□ Water-Stained Leaves (B9) (exceed 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Sc	ing Roots	A	Vater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) i3) ist (B4) 5) icks (B6)		□ Water-Stained Leaves (B9) (exceed 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Scale Stunted or Stressed Plants (D1) (	ing Roots	A	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) sist (B4) 5) acks (B6) le on Aerial In	nagery (B:	□ Water-Stained Leaves (B9) (excess	ing Roots	A	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) ist (B4) 5) scks (B6) le on Aerial In	nagery (B:	□ Water-Stained Leaves (B9) (excess	ing Roots	A	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (B Algal Mat or Cru Iron Deposits (B Surface Soil Cre Inundation Visib Sparsely Vegeta	minimum of or A1) le (A2) 1) sits (B2) list (B4) 5) lecks (B6) le on Aerial In ated Concave	nagery (B: Surface (I	□ Water-Stained Leaves (B9) (excess	ing Roots	A	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators ( Surface Water ( High Water Tab Saturation (A3) Water Marks (B Sediment Deposits (E Algal Mat or Cru Iron Deposits (B Surface Soil Cra Inundation Visib Sparsely Vegeta Surface Water Pres	minimum of or A1) le (A2) 1) sits (B2) lest (B4) 5) lecks (B6) le on Aerial In ated Concave lent?	nagery (B. Surface (I		ing Roots	A	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) sit (B4) 5) le ks (B6) le on Aerial In ted Concave ent? Ye	nagery (B: Surface (I es □ No	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stunted or Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	ing Roots oils (C6) LRR A)	A U W  IN D  IN D  IN S  S (C3) IN G  IN S  IN F  IN F	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) sit (B4) 5) le on Aerial In ted Concave ent? Ye	nagery (B. Surface (I	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stunted or Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	ing Roots oils (C6) LRR A)	A U W  IN D  IN D  IN S  S (C3) IN G  IN S  IN F  IN F	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Primary Indicators (i) Surface Water (iii) High Water Tab Saturation (A3) Water Marks (Billies Sediment Deposits (Billies Sediment Office Soil Crail Inundation Visibility Sparsely Vegeta Field Observations Surface Water Present Saturation Present? (includes capillary for	minimum of or A1) le (A2) 1) sits (B2) list (B4) 5) le on Aerial In ated Concave tr ye tr ye inge)	nagery (B: Surface (I es □ No es □ No	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stunted or Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	ing Roots pils (C6) LRR A) Wetla	A U W  I D  I S  S (C3) I G  I F  I R  I F	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i) Surface Water (iii) High Water Tab Saturation (A3) Water Marks (Billies Sediment Deposits (Billies Sediment Office Soil Crail Inundation Visibility Sparsely Vegeta Field Observations Surface Water Present Saturation Present? (includes capillary for	minimum of or A1) le (A2) 1) sits (B2) list (B4) 5) le on Aerial In ated Concave tr ye tr ye inge)	nagery (B: Surface (I es □ No es □ No	□ Water-Stained Leaves (B9) (excertion 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Scale    □ Stunted or Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	ing Roots pils (C6) LRR A) Wetla	A U W  I D  I S  S (C3) I G  I F  I R  I F	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) l3) let (B4) 5) lcks (B6) le on Aerial In ated Concave tr Ye inge) Data (stream	nagery (B; Surface (I es □ No es □ No gauge, mo	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	oils (C6) LRR A) Wetla ctions), if	A U W  D  S S (C3) V G  S C F  R C F  And Hydrolog	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) l3) let (B4) 5) lcks (B6) le on Aerial In ated Concave tr Ye inge) Data (stream	nagery (B; Surface (I es □ No es □ No gauge, mo	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	oils (C6) LRR A) Wetla ctions), if	A U W  D  S S (C3) V G  S C F  R C F  And Hydrolog	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) l3) let (B4) 5) lcks (B6) le on Aerial In ated Concave tr Ye inge) Data (stream	nagery (B; Surface (I es □ No es □ No gauge, mo	□ Water-Stained Leaves (B9) (excertion 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Scale    □ Stunted or Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	oils (C6) LRR A) Wetla ctions), if	A U W  D  S S (C3) V G  S C F  R C F  And Hydrolog	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)
Wetland Hydrology Primary Indicators (i Surface Water (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	minimum of or A1) le (A2) 1) sits (B2) l3) let (B4) 5) lcks (B6) le on Aerial In ated Concave tr Ye inge) Data (stream	nagery (B; Surface (I es □ No es □ No gauge, mo	□ Water-Stained Leaves (B9) (excert 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Livit    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Science of Stressed Plants (D1) (C7)     □ Other (Explain in Remarks)     □ ☑ Depth (inches):	oils (C6) LRR A) Wetla ctions), if	A U W  D  S S (C3) V G  S C F  R C F  And Hydrolog	/ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) rainage Patterns (B10) ry-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) eomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) rost-Heave Hummocks (D7)

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

Project/Site: Barkley Meadows		_Olly/County, _ <del>10/</del>	Sampling Date: 10-13-1
			State: WA Sampling Point: DP-4
Investigator(s): E. Miller, L. Hansen		Section,	Township, Range: Sec 16, T38N, RO3 E
Landform (hillslope, terrace, etc.): Hillslope		Local relief (concav	ve, convex, none): Slope (%): 2 //
Subregion (LRR): A	Lat:		Long: Datum:
			NWI classification: up land
Are climatic / hydrologic conditions on the site typical for	this time of v	ear? Ves IV No II	//f no. evalgin in Pomerko )
Are Vegetation, Soil, or Hydrology sig			ormal Circumstances" present? Yes ☑ No ☐
Are Vegetation, Soil, or Hydrology nati			
· · · · · · · · · · · · · · · · · · ·		•	ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site ma	p showing	g sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ☑ No ☐	]	le the Count	of America
Hydric Soil Present? Yes ☐ No ☐	1	Is the Sample	
Wetland Hydrology Present? Yes ☐ No ☐	á	within a wetta	and? Yes □ No ☑
Remarks: upland north of W	LAA	nd south	of WLB near west
properly line.			
/EGETATION – Use scientific names of pla	nts.		
Tree Stratum (Plot size:)	Absolute		Dominance Test worksheet:
		Species? Status	Number of Dominant Species That Are OBL FACW or FAC:
1. Thuja plicata	18()	- X 174C	That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
4.			Species Across All Strata: (B)
Sapling/Shrub Stratum (Plot size: )	po	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
· · · · · · · · · · · · · · · · · · ·	マハ	× FAC	Prevalence Index worksheet:
2. Oemleria cerasiformis		7-4-11	
3. Symphoricorpos albus	20	× EA	OBL species x1 =
4. Rilais armeniacus	10	FAL	FACW species x 2 =
5. Pubus opertabilis	5	FAC	FAC species x3 =
	KD	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size:)			UPL species x 5 =
1. Athyrium felio-femna	&_	X FAC	Column Totals: (A) (B)
2			
3,			Prevalence Index = B/A =
4		·	Hydrophytic Vegetation Indicators:
5	• •	· —— —	Rapid Test for Hydrophytic Vegetation Dominance Test is >50%
5			☐ Prevalence index is ≤3.0 <sup>4</sup>
7.	-		☐ Morphological Adaptations¹ (Provide supporting
3. 3.	-		data in Remarks or on a separate sheet)
10			☐ Wetland Non-Vascular Plants¹
11			☐ Problematic Hydrophytic Vegetation¹ (Explaîn)
Noody Vine Stratum (Plot size:)	_2	= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2			Hydrophytic Vegetation
	0	= Total Cover	Present? Yes M No
% Bare Ground in Herb Stratum			

Profile Description: (Describe to the depth needed to document the indicator or confirm	n the absence of indicators.)
Depth Matrix Redox Features	m /
(inches) Color (moist) % Color (moist) % Type <sup>1</sup> Loo <sup>2</sup>	
D-11" 104R212 100	wam
11-16' 10/K 3/2 1002	Silo
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr	rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solls <sup>3</sup> :
☐ Histosol (A1) ☐ Sandy Redox (S5)	2 cm Muck (A10)
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6)	Red Parent Material (TF2)
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) (except MLRA 1)	☐ Very Shallow Dark Surface (TF12)
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3)	
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
☐ Sandy Mucky Mineral (S1) ☐ Depleted Dark Surface (F7)	wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4) ☐ Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	
Type:	
Depth (inches):	Hydric Soil Present? Yes ☐ No ☐
Remarks: Does not meet hydric soil inc	dicatous
J	
·	
·	
HYDROLOGY	
HYDROLOGY  Westland Hydrology Indicators:	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)  Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) (except MLR	Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) (except MLR ☐ High Water Table (A2)  1, 2, 4A, and 4B)	Mater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Salt Crust (B11)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (except MLR □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13)	Mater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (except MLR □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (except MLR In Indicators) □ High Water Table (A2) In Indicators (B1) □ Salt Crust (B11) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Room	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (except MLR High Water Table (A2) 1, 2, 4A, and 4B)  □ Saturation (A3) □ Salt Crust (B11)  □ Water Marks (B1) □ Aquatic Invertebrates (B13)  □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1)  □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Root Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4)  □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils (C6)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roo         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  ts (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Is (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roof         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)         □ Sparsely Vegetated Concave Surface (B8)         Field Observations:       □ Opeth (inches): □         Surface Water Present?       Yes □ No □         Depth (inches): □       □         Water Table Present?       Yes □ No □         Depth (inches): □       □         Wetter Table Present?       Yes □ No □         Depth (inches): □       □	AA
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	AA

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

Applicant/Owner Population of Contract of	14.0	_City/County,	11ingham Sampling Date: 6-13-
			State: WA Sampling Point: DP-5
Investigator(s): F. Pittler L. Hansen		Section,	Township, Range: Sec 16, T38N, RD3 F
			re, convex, none): Con Colve Slope (%): 2
			Long: Datum:
oil Map Unit Name:			NWI classification: PFO, WLB
re climatic / hydrologic conditions on the site typical for t			(If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology sign			ormal Circumstances" present? Yes ☑ No 🏻
re Vegetation, Soil, or Hydrology natu	rally problen	natic? (If neede	ed, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site map	showing	sampling point	locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes ☑ No ☐			
Hydric Soil Present? Yes ☑ No ☐		Is the Sample	
Wetland Hydrology Present? Yes ☑ No ☐		1	and? Yes ☑ No □
Remarks: Soveth and of MUR  EGETATION - Use scientific names of plan		r flag B	-2.
		Dominant Indicator	Dominance Test worksheet:
<u>(Plot size:)</u>		Species? Status	Number of Dominant Species 17
Alnus mbra			That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
			Species Across All Strata:
		. 7:4:10	Percent of Dominant Species
apling/Shrub Stratum (Plot size:)	-17	= Total Cover	That Are OBL, FACW, or FAC: 100 (A/B)
Lonicera involucrata	60	X FAU	Prevalence Index worksheet:
	<del></del>	<del></del>	Total % Cover of: Multiply by:
			OBL species x1 =
			FACW species x 2 =
	4.0		FAC species x 3 =
erb Stratum (Plot size:)	40	= Total Cover	FACU species x 4 =
Equistum acrense	15	X FAZ	UPL species x5 =
Athyrium felix femina			Column Totals: (A) (B)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:
			☐ Rapid Test for Hydrophytic Vegetation
			☑ Dominance Test is >50%
			☐ Prevalence Index is ≤3.0¹
			☐ Morphological Adaptations¹ (Provide supporting
			data in Remarks or on a separate sheet)
•			Wetland Non-Vascular Plants
-			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
oody Vine Stratum (Plot size:)		= Total Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
			Hydrophytic
			Vegetation
Bare Ground in Herb Stratum		= Total Cover	Present? Yes ☑ No □

			firm the absence of indicators.)
Depth Mat	nix	Redox Features	Texture Remarks
(inches) Color (moist)		Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
0-17" 10115511			<u>ulo</u>
17-19' 104R412	95	101/R414 5 C M	_ cho
			· · · · · · · · · · · · · · · · · · ·
	<del></del>		
<sup>1</sup> Type: C=Concentration, D=	Depletion, RM=	Reduced Matrix, CS=Covered or Coated Sand	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Ap	plicable to all	LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
☐ Histosol (A1)		☐ Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)		☐ Stripped Matrix (S6)	Red Parent Material (TF2)
☐ Black Histic (A3)		Loamy Mucky Mineral (F1) (except MLRA	
☐ Hydrogen Sulfide (A4) ☐ Depleted Below Dark Su		<ul><li>☐ Loamy Gleyed Matrix (F2)</li><li>☐ Depleted Matrix (F3)</li></ul>	Other (Explain in Remarks)
☐ Depicted Below Dark Surface (A12)		Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S	•	☐ Depleted Dark Surface (F7)	wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4	,	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if presen			
Type:		<u></u>	
Depth (inches):			Hydric Soll Present? Yes ☑ No □
Remarks: Meets	A 1 (5)		
riceis	191 200		
HYDROLOGY			
Wetland Hydrology Indicate			Secondary Indicators /2 or more required)
Wetland Hydrology Indicate Primary Indicators (minimum			Secondary Indicators (2 or more required)
Wetland Hydrology Indicate Primary Indicators (minimum  Surface Water (A1)		☐ Water-Stained Leaves (B9) (except N	ILRA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicate Primary Indicators (minimum ☐ Surface Water (A1) ☑ High Water Table (A2)		☐ Water-Stained Leaves (B9) (except N 1, 2, 4A, and 4B)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicate Primary Indicators (minimum ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3)		<ul><li>☐ Water-Stained Leaves (B9) (except № 1, 2, 4A, and 4B)</li><li>☐ Salt Crust (B11)</li></ul>	MLRA
Wetland Hydrology Indicate Primary Indicators (minimum ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1)		<ul> <li>Water-Stained Leaves (B9) (except № 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> </ul>	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☑ High Water Table (A2)  ☑ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)		<ul> <li>Water-Stained Leaves (B9) (except № 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	MLRA
Wetland Hydrology Indicate  Primary Indicators (minimum  ☐ Surface Water (A1)  ☐ High Water Table (A2)  ☐ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)		<ul> <li>Water-Stained Leaves (B9) (except № 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Living R</li> </ul>	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Coots (C3) Geomorphic Position (D2)
Wetland Hydrology Indicate  Primary Indicators (minimum  ☐ Surface Water (A1)  ☐ High Water Table (A2)  ☐ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)		☐ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) ☐ Salt Crust (B11) ☐ Aquatic Invertebrates (B13) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Right Presence of Reduced Iron (C4)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☐ High Water Table (A2)  ☐ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)	of one required	<ul> <li>Water-Stained Leaves (B9) (except № 1, 2, 4A, and 4B)</li> <li>Salt Crust (B11)</li> <li>Aquatic Invertebrates (B13)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres along Living R</li> </ul>	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  C6)  FAC-Neutral Test (D5)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☑ High Water Table (A2)  ☑ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)  ☐ Surface Soil Cracks (B6)	of one required	Uwater-Stained Leaves (B9) (except № 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils ( Stunted or Stressed Plants (D1) (LRR	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  C6)  FAC-Neutral Test (D5)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☑ High Water Table (A2)  ☑ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)  ☐ Surface Soil Cracks (B6)  ☐ Inundation Visible on Aer	of one required	Uwater-Stained Leaves (B9) (except № 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils ( Stunted or Stressed Plants (D1) (LRR)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☑ High Water Table (A2)  ☑ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)  ☐ Surface Soil Cracks (B6)	of one required	Uwater-Stained Leaves (B9) (except № 1, 2, 4A, and 4B) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils ( Stunted or Stressed Plants (D1) (LRR)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☑ High Water Table (A2)  ☑ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)  ☐ Surface Soil Cracks (B6)  ☐ Inundation Visible on Aer  ☐ Sparsely Vegetated Cond	of one required	□ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (Implication of Stunted or Stressed Plants (D1) (LRR)     □ Other (Explain in Remarks)	MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond	of one required		MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicate Primary Indicators (minimum  ☐ Surface Water (A1)  ☐ High Water Table (A2)  ☐ Saturation (A3)  ☐ Water Marks (B1)  ☐ Sediment Deposits (B2)  ☐ Drift Deposits (B3)  ☐ Algal Mat or Crust (B4)  ☐ Iron Deposits (B5)  ☐ Surface Soil Cracks (B6)  ☐ Inundation Visible on Aer  ☐ Sparsely Vegetated Conce Field Observations:  Surface Water Present?  Water Table Present?	of one required ial Imagery (B7 cave Surface (B Yes □ No Yes ☑ No		MLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Coots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	of one required ial Imagery (B7) cave Surface (B  Yes □ No Yes ☑ No	Usater-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living R  Presence of Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils ( Stunted or Stressed Plants (D1) (LRR)  Other (Explain in Remarks)  Depth (inches):  Depth (inches):  W  Depth (inches):  W  W	ALRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  AA) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	of one required ial Imagery (B7) cave Surface (B  Yes □ No Yes ☑ No		ALRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  AA) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) Y High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (street	ial Imagery (B7 cave Surface (B Yes  No Yes  No Yes  No		MLRA
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	ial Imagery (B7 cave Surface (B Yes  No Yes  No Yes  No		MLRA
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) Y High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (street	ial Imagery (B7 cave Surface (B Yes  No Yes  No Yes  No		ALRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  Roots (C3) Geomorphic Position (D2)  Shallow Aquitard (D3)  (C6) FAC-Neutral Test (D5)  AA) Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aer Sparsely Vegetated Cond Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (street	ial Imagery (B7 cave Surface (B Yes  No Yes  No Yes  No		MLRA

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

Project/Site: Barkley Meadows	Cit	y/County: Be	11ingham Sampling Date: 6-13-18
Applicant/Owner: Pominian Sustaina	La Pers	U. Corp.	State: WA Sampling Point: DP- 6
			Township, Range: Sec 16, T38N, RD3 E
Landform (hillslope, terrace, etc.): Hillslope	Lo	ocal relief (concav	e, convex, none): CXVVCY Slope (%):5-10
			Long: Datum:
			NWI classification:
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology sign			rmal Circumstances" present? Yes ☑ No ☐
Are Vegetation, Soil, or Hydrology nat			ed, explain any answers in Remarks.)
		·	locations, transects, important features, etc.
	/	in paring point	iodatorio, transcoto, important reatures, etc.
Hydrophytic Vegetation Present? Yes ☐ No [	· ,	Is the Sample	d Area
Hydric Soil Present? Yes No	,	within a Wetla	
Wetland Hydrology Present? Yes No [			
Remarks: Upland west of Wetlan	d B, re	er south	end
VEGETATION – Use scientific names of pla	nte		
		minant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Sp	oecies? Status	Number of Dominant Species
1. Alnus rubra	_ 20	X TAU	That Are OBL, FACW, or FAC:2 (A)
2 Pseudotisuga menziesul	42_	x FACU	Total Number of Dominant
3			Species Across All Strata:
4	<del>- 1.2</del> -		Percent of Dominant Species
Sapling/Shrub Stratum (Plot size:)	<u>60</u> =	Total Cover	That Are OBL, FACW, or FAC: 28% (A/B)
1. Symphocicorpus albus	40	x FACU	Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x1 =
4			FACW species x2=
5			FAC species x 3 =
Hoch Clasticas (Dist!	_bo_ =-	Total Cover	FACU species x4 =
Herb Stratum (Plot size:) 1. Rolyctichum munitum	7.3 0	E Am I I	UPL species x 5 =
2 Demiena cerasiformis		- FACU	Column Totals: (A) (B)
3. Rubus arsinas		× FALL	Prevalence Index = B/A =
4. Holcus lanatus			Hydrophytic Vegetation Indicators:
5.			☐ Rapid Test for Hydrophytic Vegetation
6.	·		☐ Dominance Test is >50%
7			☐ Prevalence Index is ≤3.01
8			☐ Morphological Adaptations¹ (Provide supporting
9			data in Remarks or on a separate sheet)
10			☐ Wetland Non-Vascular Plants¹
11			Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size:)	lo() = T		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1		<del>_</del>	Hydrophydio
2.			Hydrophytic Vegetation
	() _ <del>-</del> <del>-</del> <del>-</del>	otal Cover	Present? Yes □ No □
% Bare Ground in Herb Stratum	= 1	10.0010.	1

Profile Description: (Describe to the depth needed to document the Indicator or confirm	the absence of mulcators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type¹ Loc²	Texture Remarks
D-10, 101K 515 100	Loam
6-16 104K314 100	5,20
	2
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr	ains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Solls <sup>3</sup> :
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	
☐ Histosol (A1) ☐ Sandy Redox (S5)	2 cm Muck (A10)
Histic Epipedon (A2)  Stripped Matrix (S6)	<ul><li>☐ Red Parent Material (TF2)</li><li>☐ Very Shallow Dark Surface (TF12)</li></ul>
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) (except MLRA 1) ☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)   ☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3)	- Otter (Explain in Follows)
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
☐ Sandy Mucky Mineral (S1) ☐ Depleted Dark Surface (F7)	wetland hydrology must be present,
☐ Sandy Gleyed Matrix (S4) ☐ Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):	
Туре:	
Depth (inches):	Hydric Soil Present? Yes ☐ No
Remarks: Does at wood had a cilidia	
Remarks: Does not meet hydric soil indica	270/5,
HYDROLOGY	
HYDROLOGY  Wetland Hydrology Indicators:	
Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) (except MLR	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1)  □ High Water Table (A2)  □ 1, 2, 4A, and 4B)	A Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Satt Crust (B11)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (except MLR  □ High Water Table (A2) 1, 2, 4A, and 4B)  □ Saturation (A3) □ Salt Crust (B11)  □ Water Marks (B1) □ Aquatic Invertebrates (B13)  □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) S (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) S (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) S (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) S (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
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Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Root         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)         □ Sparsely Vegetated Concave Surface (B8)         Field Observations:       Surface Water Present?       Yes □ No □ Depth (inches):	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)  S (C3)  Geomorphic Position (D2)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)  Raised Ant Mounds (D6) (LRR A)  Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLR 1, 2, 4A, and 4B)         □ High Water Table (A2)       1, 2, 4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roof (C4)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)         □ Sparsely Vegetated Concave Surface (B8)         Field Observations:         Surface Water Present?       Yes □ No □ Depth (inches): □ Vegetated (Inches): □ V	A Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) S (C3) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
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### WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Barkley Meadows		_City/Cou	inty: <u>Be</u>	11ingham Sampling Date: 10-13-1
Applicant/Owner: Domintan Sustainal	ele De	wel.	Corp.	State: WA Sampling Point: PP~ 7
Investigator(s): E. Miller, L. Hansen			_ Section,	Township, Range: Sec 16, T38N, RO3E
Landform (hillslope, terrace, etc.): Hillslope		Local re	elief (concav	re, convex, none): YOYL Slope (%): 5-9
				Long: Datum:
				NWI classification: PFO W D
Are climatic / hydrologic conditions on the site typical for the				
Are Vegetation, Soil, or Hydrology sign				ormal Circumstances" present? Yes 🖫 No 🗍
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampl	ing point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ☐ No ☐		le	the Sample	d Aron
Hydric Soil Present? Yes ☑ No ☐		Is the Sampled Area within a Wetland? Yes ☑ No ☐		
Wetland Hydrology Present? Yes ☑ No □		- 1		<del></del>
Remarks: Wetland D, in NW	work	of	bok	sefty
				. J
/EGETATION – Use scientific names of plar	nts.			
Too Charles (District			nt Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)  1. Thuia plicata			? Status	Number of Dominant Species
2. Alnos nubra				That Are OBL, FACW, or FAC: (A)
3.				Total Number of Dominant
4.				Species Across All Strata: (B)
"	50	= Total	Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: 150 (A/B)
Sapling/Shrub Stratum (Plot size:)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Lonicera involucrata				Prevalence Index worksheet:
2. Rubus soletabilis	30	<u>_</u> <u> </u>	FAC	Total % Cover of: Multiply by:
3. Ribes la custre				OBL species x1 =
4				FACW species x 2 =
5	120		·	FACUl procise x3 = x3 = x4 = x4 = x4 = x4 = x4 = x4 =
Herb Stratum (Plot size:)	100	= 10(a) (	Jover	FACU species x 4 = UPL species x 5 =
*				Column Totals: (A) (B)
				(A)(B)
·				Prevalence Index = B/A =
•			<del></del>	Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
•				Dominance Test is >50%
				☐ Prevalence Index is ≤3.0¹
	<del></del>			Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
				☐ Wetland Non-Vascular Plants¹
0	<del> </del>			☐ Problematic Hydrophytic Vegetation¹ (Explain)
1	_0_	= Total C	Cover	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				Hydrophytic
			· Ovor	Vegetation   Present? Yes ☑ No □
	17	= Total C	OVCI	

Profile Description: (Describe to the depth needed to document the Indicator			
Depth   Matrix   Redox Features   (inches)   Color (moist)   %   Color (moist)   %   Type <sup>1</sup>	Loc2	Texture	Remarks
0-10, 1018 511 100			
10-16" 1048412 80 1048314 10 C	11		
10-16, 101K 315 10			
1016 1016 316 10			
¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coate	d Sand Gr		PL=Pore Lining, M=Matrix.  Problematic Hydric Soils <sup>3</sup> :
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		2 cm Muck	-
☐ Histosol (A1) ☐ Sandy Redox (S5)			t Material (TF2)
☐ Histic Epipedon (A2)       ☐ Stripped Matrix (S6)         ☐ Black Histic (A3)       ☐ Loamy Mucky Mineral (F1) (except	MI DA 41		ow Dark Surface (TF12)
<u> </u>	IBLKA I)		lain in Remarks)
Hydrogen Sulfide (A4)  IV Depleted Below Dark Surface (A11)  Depleted Matrix (F3)		□ Odici (Exp	iam in Nomano)
		3Indicators of h	ydrophytic vegetation and
			rology must be present,
☐ Sandy Mucky Mineral (S1) ☐ Depleted Dark Surface (F7) ☐ Sandy Gleyed Matrix (S4) ☐ Redox Depressions (F8)			rbed or problematic.
		Timeed dista	
Restrictive Layer (if present):			,
Type: Depth (inches):		Hydric Soil Prese	nt? Yes ☑ No 🏻
D		1 - 7	
Meets All		•	
•			
HYDROLOGY			
HYDROLOGY Wetland Hydrology Indicators:		<u>.</u>	
Wetland Hydrology Indicators:		Secondary I	ndicators (2 or more required)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)	cept MLR		ndicators (2 or more required) tained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1)  ☐ Water-Stained Leaves (B9) (ex	cept MLR	A  Water-S	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (example)         □ High Water Table (A2)       1, 2, 4A, and 4B)	ccept MLR	A ☐ Water-S	tained Leaves (B9) (MLRA 1, 2, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) (example) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Salt Crust (B11)	cept MLR	A ☐ Water-S 4A, a ☑ Drainag	tained Leaves (B9) (MLRA 1, 2, and 4B) e Patterns (B10)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Aquatic Invertebrates (B13)	cept MLR	A ☐ Water-S 4A, i ☑ Drainagi ☐ Dry-Sea	tained Leaves (B9) (MLRA 1, 2, and 4B)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Water Marks (B1) □ Sediment Deposits (B2)  □ Hydrogen Sulfide Odor (C1)		A ☐ Water-S 4A, a ☑ Drainaga ☐ Dry-Sea ☐ Saturatio	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ Water-Stained Leaves (B9) (extended to the control of the contr	iving Rool	Mater-S 4A, a  ✓ Drainaga  ☐ Dry-Sea  ☐ Saturation  ☐ Geomor	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onhic Position (D2)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	_iving Rool	Mater-S  4A, a  ☑ Drainage ☐ Dry-Sea ☐ Saturation ☐ Geomor ☐ Shallow	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Ohic Position (D2) Aquitard (D3)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  □ Surface Water (A1) □ High Water Table (A2) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled	_iving Rool ) I Soils (C6)	Water-S  4A, a  ✓ Drainage  ☐ Dry-Sea  ☐ Saturatie  S (C3) ☐ Geomor  ☐ Shallow  ☐ FAC-Ne	tained Leaves (B9) (MLRA 1, 2, and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Salt Crust (B11) ☐ Water Marks (B1) ☐ Aquatic Invertebrates (B13) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled ☐ Sturface Soil Cracks (B6) ☐ Stunted or Stressed Plants (D.)	_iving Rool ) I Soils (C6)	Water-S  4A, a  Drainage Dry-Sea Saturation S(C3) Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the control of the c	_iving Rool ) I Soils (C6)	Water-S  4A, a  Drainage Dry-Sea Saturation S(C3) Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1, 2, and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) utral Test (D5)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	_iving Rool ) I Soils (C6)	Water-S  4A, a  Drainage Dry-Sea Saturation S(C3) Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Salt Crust (B11)  Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Surface Soil Cracks (B6)  Inundation Visible on Aerial Imagery (B7)  Fleid Observations:  Water-Stained Leaves (B9) (example of the stain of the stai	_iving Rool ) I Soils (C6)	Water-S  4A, a  Drainage Dry-Sea Saturation S(C3) Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	_iving Rool ) I Soils (C6)	Water-S  4A, a  Drainage Dry-Sea Saturation S(C3) Geomor Shallow FAC-Ne Raised	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the control of the c	Living Rool ) I Soils (C6) I) (LRR A)	Water-S  4A, a  Drainage  Dry-Sea  Saturation Shallow FAC-Ne  Raised A  Frost-He	tained Leaves (B9) (MLRA 1, 2, and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) outral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Living Roof ) I Soils (C6) I) (LRR A)  Wetli	Water-S  4A, a  Drainage  Dry-Sea  Saturation Shallow FAC-Ne Raised A  Frost-He	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Onic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the control of the c	Living Roof ) I Soils (C6) I) (LRR A)  Wetli	Water-S  4A, a  Drainage  Dry-Sea  Saturation Shallow FAC-Ne Raised A  Frost-He	tained Leaves (B9) (MLRA 1, 2, and 4B) e Patterns (B10) son Water Table (C2) on Visible on Aerial Imagery (C9) ohic Position (D2) Aquitard (D3) outral Test (D5) Ant Mounds (D6) (LRR A) eave Hummocks (D7)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the content of the c	Living Rool ) I Soils (C6) I) (LRR A)  Wetla pections),	A Water-S 4A, a 4A, a Drainage Dry-Sea Saturatic S (C3) Geomor Shallow FAC-Ne Raised A Frost-He and Hydrology Pres	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Ohic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A) Pave Hummocks (D7)  ent? Yes \( \sqrt{V} \) No \( \sqrt{L} \)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the content of the c	Living Rool ) I Soils (C6) I) (LRR A)  Wetla pections),	A Water-S 4A, a 4A, a Drainage Dry-Sea Saturatic S (C3) Geomor Shallow FAC-Ne Raised A Frost-He and Hydrology Pres	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Ohic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A) Pave Hummocks (D7)  ent? Yes \( \sqrt{V} \) No \( \sqrt{L} \)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Surface Water (A1)	Living Rool ) I Soils (C6) I) (LRR A)  Wetla pections),	A Water-S 4A, a 4A, a Drainage Dry-Sea Saturatic S (C3) Geomor Shallow FAC-Ne Raised A Frost-He and Hydrology Pres	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Ohic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A) Pave Hummocks (D7)  ent? Yes \( \sqrt{V} \) No \( \sqrt{L} \)
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (expected by the context of the c	Living Rool ) I Soils (C6) I) (LRR A)  Wetla pections),	A Water-S 4A, a 4A, a Drainage Dry-Sea Saturatic S (C3) Geomor Shallow FAC-Ne Raised A Frost-He and Hydrology Pres	tained Leaves (B9) (MLRA 1, 2, and 4B) Patterns (B10) Son Water Table (C2) On Visible on Aerial Imagery (C9) Ohic Position (D2) Aquitard (D3) Outral Test (D5) Ant Mounds (D6) (LRR A) Pave Hummocks (D7)  ent? Yes \( \sqrt{V} \) No \( \sqrt{L} \)

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

Project/Site: Barkley Meadows	City/	County: Bellingham Sampling Date: 13-1
		1. Corp. State: WA Sampling Point: DP-8
Investigator(s): E. Miller, L. Hansen		Section, Township, Range: Sec 16, T38N, R03 E
Landform (hillslope, terrace; etc.): Hillslope	Loc	cal relief (concave, convex, none): Slope (%): \_\\
Subregion (LRR): A	Lat:	Long: Datum:
		NWI classification: Wolond
Are climatic / hydrologic conditions on the site typical for th	is time of year? Y	res ☑ No ☐ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signi	ificantly disturbed	? Are "Normal Circumstances" present? Yes ☑ No □
Are Vegetation, Soil, or Hydrology natur	ally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?  Hydric Soil Present?  Wetland Hydrology Present?  Yes ☑ No ☑  Yes ☑ No ☑	,	Is the Sampled Area within a Wetland? Yes □ No ☑
Remarks: Upland on east si Corner of property.		M D (uphill side), in NW
/EGETATION – Use scientific names of plan	its.	
Tree Stratum (Plot size: )		ninant Indicator Dominance Test worksheet:
1Pseudotsuga menziesii	% Cover Spe	Number of Dominant Species
2. Thuja prata	40 x	That Are OBL, FACW, or FAC:  (A)
3. Alnos rubra		
4		Opedes Adoss All Strata, (B)
Sapling/Shrub Stratum (Plot size:)	150 = To	Percent of Dominant Species That Are OBL, FACW, or FAC: 571 (A/B)
1. Symphoricorpos albus	_30_x	FACM Prevalence Index worksheet:
2. Pubis speetabilis	50 X	Total % Cover of: Multiply by:
3. Acer circinatum		
4		
5		FAC species x3 =
Herb Stratum (Plot size:)	or = <u>O8</u> _	
. Polyctichum munitum	_20_x	UPL species
7		Goldfill Totals(A)(B)
•		Hydrophytic Vegetation Indicators:
		Rapid Test for Hydrophytic Vegetation
0		
1.		LI Problematic Hydrophytic Vegetation' (Explain)
Voody Vine Stratum (Plot size:)	20 = Tot	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		Hydrophytic
		Hydrophytic Vegetation
6 Bare Ground in Herb Stratum	= Tot	tal Cover Present? Yes 🗹 No 🗆

Profile Description	MI. (Describe to	mo aspen	needed to document the indicator or confi	iriii tile abselice of mulcators.)
Depth	Matrix		Redox Features	_ :
	r (moist)	% <u>C</u>	olor (moist) % Type <sup>1</sup> Loc <sup>2</sup>	
<u>0-13" 104</u>	R212 1	<u>00                                   </u>		Loam
13+" 10	18412	40_		Silo
·	•	40 1	0412314 20 C M	Silo
		<u> </u>	<u> </u>	
				<u></u>
1=0	terline DeDevlot	ion DMmD	adveced Matrix CS=Covered or Coated Sand	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hudrle Soil Indica	tration, D≕Deplet	io to all I E	educed Matrix, CS=Covered or Coated Sand RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
l	ուսյց. (ուրիուսու		Sandy Redox (S5)	2 cm Muck (A10)
☐ Histosol (A1) ☐ Histic Epipedo	n (Δ2)		Stripped Matrix (S6)	☐ Red Parent Material (TF2)
☐ Black Histic (A			Loamy Mucky Mineral (F1) (except MLRA 1	1) Uery Shallow Dark Surface (TF12)
☐ Hydrogen Sulf	•		Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
Depleted Below		A11) 🗆	Depleted Matrix (F3)	
☐ Thick Dark Su	rface (A12)		Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
☐ Sandy Mucky				wetland hydrology must be present,
Sandy Gleyed			Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer	(if present):			
Type:			<del></del>	Hydric Soil Present? Yes □ No ☑
Remarks:	Does	n +	meet hydric soil i	in directors
		101	mass regardo astro	(V 0 0 0 1 0 1 3 .
1				
1		•		
HYDROLOGY		·		
HYDROLOGY Wetland Hydrolog	ny Indicators:			
Wetland Hydrolog		o tednited; (	check all that apply)	Secondary Indicators (2 or more required)
Wetland Hydrolog	(minimum of one	required; c	check all that apply)	Secondary Indicators (2 or more required)  LRA
Wetland Hydrolog Primary Indicators  Surface Water	(minimum of one (A1)	required; o	☐ Water-Stained Leaves (B9) (except M	LRA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrolog Primary Indicators Surface Water High Water Ta	(minimum of one (A1) ble (A2)	required; c	☐ Water-Stained Leaves (B9) (except Mi 1, 2, 4A, and 4B)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3	(minimum of one (A1) ble (A2)	e required; c	<ul><li>☐ Water-Stained Leaves (B9) (except Minute 1, 2, 4A, and 4B)</li><li>☐ Salt Crust (B11)</li></ul>	LRA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3	(minimum of one (A1) ble (A2) ) B1)	e required; c	<ul> <li>□ Water-Stained Leaves (B9) (except Mind 1, 2, 4A, and 4B)</li> <li>□ Salt Crust (B11)</li> <li>□ Aquatic Invertebrates (B13)</li> </ul>	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep	(minimum of one (A1) ble (A2) ) B1) osits (B2)	required; c	□ Water-Stained Leaves (B9) (except Minus 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3)	ı required; c	□ Water-Stained Leaves (B9) (except Minute 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living References.	LRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  Drainage Patterns (B10)  Dry-Season Water Table (C2)  Saturation Visible on Aerial Imagery (C9)
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits Algal Mat or C	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4)	required; c	□ Water-Stained Leaves (B9) (except Minus 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits Algal Mat or C	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4)	e required; c	□ Water-Stained Leaves (B9) (except Minute 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Record Presence of Reduced Iron (C4)	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits Algal Mat or C Iron Deposits (I) Surface Soil C	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6)		□ Water-Stained Leaves (B9) (except Minuth 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Religion    □ Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (Calculus In Tille	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Algal Mat or C Iron Deposits (I) Surface Soil C Inundation Vis	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima	igery (B7)	Water-Stained Leaves (B9) (except Minute 1, 2, 4A, and 4B)     Salt Crust (B11)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres along Living Recenture of Reduced Iron (C4)     Recent Iron Reduction in Tilled Soils (Call Inc.)     Stunted or Stressed Plants (D1) (LRR)     Other (Explain in Remarks)	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits Algal Mat or C Iron Deposits (I) Surface Soil C	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima	igery (B7)	□ Water-Stained Leaves (B9) (except Minus, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Religion of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (Called Standard or Stressed Plants (D1) (LRRight Other (Explain in Remarks)	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Algal Mat or C Iron Deposits (I) Surface Soil C Inundation Visits Sparsely Vege Field Observation	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima	igery (B7) urface (B8)	□ Water-Stained Leaves (B9) (except Minus, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Religion of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (Called Standard or Stressed Plants (D1) (LRRight Other (Explain in Remarks)	LRA
Wetland Hydrolog Primary Indicators  Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Algal Mat or C Iron Deposits (I) Surface Soil C Inundation Visits Sparsely Vege Field Observation Surface Water Pre	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima blated Concave Si is:	igery (B7) urface (B8) □ No [7	□ Water-Stained Leaves (B9) (except Minus 1, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Reliable Presence of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (C1)     □ Stunted or Stressed Plants (D1) (LRR 1)     □ Other (Explain in Remarks)	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits Algal Mat or C Iron Deposits (I) Surface Soil C Inundation Visi Sparsely Vege Field Observation Surface Water Presentation	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima blated Concave So is: esent? Yes	gery (B7) urface (B8) □ No ⊡ □ No ☑	□ Water-Stained Leaves (B9) (except Minus, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Religion of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (C1)     □ Stunted or Stressed Plants (D1) (LRR1)     □ Other (Explain in Remarks)    Depth (inches):/     □ Depth (inch	LRA
Wetland Hydrolog Primary Indicators  Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Iron Deposits (I) Iron Deposits (II) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presenting Includes capillary	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima stated Concave Si is: esent? Yes ent? Yes fringe)	gery (B7) urface (B8) No [ No [ No [	Usater-Stained Leaves (B9) (except Minuter 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Called Iron (C4))  Stunted or Stressed Plants (D1) (LRR Included Iron (C4))  Other (Explain in Remarks)  Depth (inches):/	LRA
Wetland Hydrolog Primary Indicators  Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Iron Deposits (I) Iron Deposits (II) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presenting Includes capillary	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima stated Concave Si is: esent? Yes ent? Yes fringe)	gery (B7) urface (B8) No [ No [ No [	□ Water-Stained Leaves (B9) (except Minus, 2, 4A, and 4B)     □ Salt Crust (B11)     □ Aquatic Invertebrates (B13)     □ Hydrogen Sulfide Odor (C1)     □ Oxidized Rhizospheres along Living Religion of Reduced Iron (C4)     □ Recent Iron Reduction in Tilled Soils (C1)     □ Stunted or Stressed Plants (D1) (LRR1)     □ Other (Explain in Remarks)    Depth (inches):/     □ Depth (inch	LRA
Wetland Hydrolog Primary Indicators  Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Iron Deposits (I) Iron Deposits (II) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presenting Includes capillary	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima stated Concave Si is: esent? Yes ent? Yes fringe)	gery (B7) urface (B8) No [ No [ No [	Usater-Stained Leaves (B9) (except Minuter 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Call Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  Depth (inches):/  Depth (inches):/  Depth (inches):/  Western Minuter 1, 24	LRA
Wetland Hydrolog Primary Indicators  Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Iron Deposits (I) Iron Deposits (II) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presenting Includes capillary	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima blated Concave So is: esent? Yes ent? Yes fringe) d Data (stream ga	gery (B7) urface (B8) □ No [ਾ □ No [ਾ □ No [r auge, monif	Usater-Stained Leaves (B9) (except Minuter 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Call Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  Depth (inches):/  Depth (inches):/  Depth (inches):/  Western Minuter 1, 24	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Algal Mat or CI Iron Deposits (I) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presentation Presentation Presentation Presentation Recorder	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima stated Concave Si is: esent? Yes ent? Yes fringe)	gery (B7) urface (B8) □ No [ਾ □ No [ਾ □ No [r auge, monif	Usater-Stained Leaves (B9) (except Minuter 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Call Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  Depth (inches):/  Depth (inches):/  Depth (inches):/  Western Minuter 1, 24	LRA
Wetland Hydrolog Primary Indicators Surface Water High Water Ta Saturation (A3 Water Marks (I) Sediment Dep Drift Deposits (I) Algal Mat or CI Iron Deposits (I) Surface Soil CI Inundation Vision Sparsely Vege Field Observation Surface Water Presentation Presentation Presentation Presentation Recorder	(minimum of one (A1) ble (A2) ) B1) osits (B2) (B3) rust (B4) (B5) racks (B6) ible on Aerial Ima blated Concave So is: esent? Yes ent? Yes fringe) d Data (stream ga	gery (B7) urface (B8) □ No [ਾ □ No [ਾ □ No [r auge, monif	Usater-Stained Leaves (B9) (except Minuter 1, 2, 4A, and 4B)  Salt Crust (B11)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Living Recent Iron Reduced Iron (C4)  Recent Iron Reduction in Tilled Soils (Call Stunted or Stressed Plants (D1) (LRR Other (Explain in Remarks)  Depth (inches):/  Depth (inches):/  Depth (inches):/  Western Minuter 1, 24	LRA

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

Project/Site: BOY Fley Meadows		_City/County: _ <b>达</b> e_	11ingham Sampling Date: 6-13-11
Applicant/Owner: Pomintan Sustainal			
			Township, Range: Sec 16, T38N, RD3 F
			ve, convex, none): CONCORE Slope (%): 21
			Long: Datum:
			NWI classification: PFO; W/ B
Are climatic / hydrologic conditions on the site typical for the	is time of ve	ar? Vec II No II	(If no eveloin in Remotic )
Are Vegetation, Soil, or Hydrology sign			
Are Vegetation, Soil, or Hydrology natur			ormal Circumstances" present? Yes ☑ No ☐
		·	led, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ☑ No ☐			
Hydric Soil Present? Yes ☑ No ☐		Is the Sample	,
Wetland Hydrology Present? Yes ☑ No ☐		within a Weti	and? Yes ☑ No □
Remarks: Wetland & at th	de la ma	()-la l	
WEIGHT D'AT TH	e ticzi	an ena	
		4.	
VEGETATION – Use scientific names of plar	ıts.		
Tree Stratum (Plot size:)	Absolute % Cover		Dominance Test worksheet:
1. Thuja plicata		Species? Status	Number of Dominant Species
2			That Are OBL, FACW, or FAC: (A)
3.		-	Total Number of Dominant
4			Species Across All Strata: (B)
		= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum (Plot size:)			matric OBL, PACVI, OF FAC: (A/B)
1			Prevalence Index worksheet:
2			Total % Cover of:Multiply by:
3			OBL species x1 =
4			FACW species x2 =
5		= Total Cover	FAC species x 3 = FACU species x 4 =
Herb Stratum (Plot size:)		- Total Cover	UPL species x 5 =
Herb Stratum (Plot size:)  1. Attnoyium Felix femina	_75	X FAU	Column Totals: (A) (B)
2. Farisctum avense	_2_	FAC	(b)
3			Prevalence Index = B/A =
4			Hydrophytic Vegetation Indicators:
5			☐ Rapid Test for Hydrophytic Vegetation
3.			Dominance Test is >50%
7		<del></del>	☐ Prevalence Index is ≤3.0¹
3		<del></del>	☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
)			Wetland Non-Vascular Plants <sup>1</sup>
10.			☐ Problematic Hydrophytic Vegetation¹ (Explain)
11.	77	≃ Total Cover	¹Indicators of hydric soil and wetland hydrology must
Voody Vine Stratum (Plot size:)	-6-	- rotal Cover	be present, unless disturbed or problematic.
,		<del></del>	
			Hydrophytic Vegetation
6 Bare Ground in Herb Stratum		≃ Total Cover	Present? Yes ☑ No □

Depth   Matrix   Redox Features   Color (moist)   %   Type¹   Loc²   Texture   Remarks	
D6" 101R212 100 Loan	
TWO TE TOURSES ON THE PROPERTY OF THE TELESCOPE	<del></del>
16-12" 10/12 90 10/12/16 10 C N SITO	
,	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.  Location: PL=Pore Lining, M=N Indicators: (Applicable to all LRRs, unless otherwise noted.)	
	ions.
E thousand (tr)	
☐ Histic Epipedon (A2)       ☐ Stripped Matrix (S6)       ☐ Red Parent Material (TF2)         ☐ Black Histic (A3)       ☐ Loamy Mucky Mineral (F1) (except MLRA 1)       ☐ Very Shallow Dark Surface (TF12)	<u>'</u> )
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2) ☐ Other (Explain in Remarks)	
☐ Depleted Below Dark Surface (A11) ☐ Depleted Matrix (F3)	
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6) 3Indicators of hydrophytic vegetation	
☐ Sandy Mucky Mineral (S1) ☐ Depleted Dark Surface (F7) wetland hydrology must be preser ☐ Sandy Gleved Matrix (S4) ☐ Redox Depressions (F8) unless disturbed or problematic.	11,
Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic.  Restrictive Layer (if present):	
Type:	
Depth (inches): Hydric Soil Present? Yes V No	
Domoska	
Meets 73.	
1	
IVPROLOGY	
HYDROLOGY	
Wetland Hydrology Indicators:	oguirad)
Wetland Hydrology Indicators:  Primary Indicators (minimum of one required; check all that apply)  Secondary Indicators (2 or more required; check all that apply)	
Wetland Hydrology Indicators:       Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or more regulators)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLRA)       □ Water-Stained Leaves (B9) (MI)	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLRA         □ High Water Table (A2)       1, 2, 4A, and 4B)	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLRA       □ Water-Stained Leaves (B9) (Minimum of the color of the colo	
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or mor	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or mor	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or mor	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or mor	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regime regime)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLRA       □ Water-Stained Leaves (B9) (MRA         □ High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)       □ Drainage Patterns (B10)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)       □ Dry-Season Water Table (C2)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)       □ Saturation Visible on Aerial Image Patterns (B10)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roots (C3)       □ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)       □ Shallow Aquitard (D3)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)       □ FAC-Neutral Test (D5)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)       □ Raised Ant Mounds (D6) (LRR	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or mor	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regiment of the primary Indicators (2 or more regiment of primary Indicators (B9) (MICR) And All And AB)       Water-Stained Leaves (B9) (MICR) And All And 4B)       Water-Stained Leaves (B9) (MICR) And All And 4B)       And 4B)       And 4B)       Water-Stained Leaves (B9) (MICR) And 4B)       And 4B)       Drift Deposits (B10)       Drift And 4B)       Drift Deposits (B10)       Dry Season Water Table (C2)	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or marks) (2 or more regulators (2 or marks) (2 or more regulators (2 or	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (2 or man part of the p	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulated)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MIL)         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Dry-Season Water Table (C2)         Sediment Deposits (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (B7)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Inon Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR Raised Ant Mounds (D6) (LRR Prost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Depth (inches):       Depth (inches):         Water Table Present?       Yes No Depth (inches):       Depth (inches):	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulated; check all that apply)         Surface Water (A1)       Water-Stained Leaves (B9) (MRA)         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Drainage Patterns (B10)         Water Marks (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (B7)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Hydrogen Sulfide Odor (C4)       Shallow Aquitard (D3)         Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Iron Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7)         Field Observations:       Surface Water Present?       Yes No Ø Depth (inches):       Wetland Hydrology Present?       Yes Ø No Ø         Saturation Present?       Yes No Ø Depth (inches):       Wetland Hydrology Present?	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulated)         Surface Water (A1)       Water-Stained Leaves (B9) (except MLRA       Water-Stained Leaves (B9) (MIL)         High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         Saturation (A3)       Salt Crust (B11)       Dry-Season Water Table (C2)         Sediment Deposits (B1)       Aquatic Invertebrates (B13)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Hydrogen Sulfide Odor (C1)       Saturation Visible on Aerial Imagery (B7)         Drift Deposits (B3)       Oxidized Rhizospheres along Living Roots (C3)       Geomorphic Position (D2)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Shallow Aquitard (D3)         Inon Deposits (B5)       Recent Iron Reduction in Tilled Soils (C6)       FAC-Neutral Test (D5)         Surface Soil Cracks (B6)       Stunted or Stressed Plants (D1) (LRR A)       Raised Ant Mounds (D6) (LRR Raised Ant Mounds (D6) (LRR Prost-Heave Hummocks (D7)         Sparsely Vegetated Concave Surface (B8)       Depth (inches):       Depth (inches):         Water Table Present?       Yes No Depth (inches):       Depth (inches):	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulated)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (except MLRA)       □ Water-Stained Leaves (B9) (M         □ High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)       □ Drainage Patterns (B10)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)       □ Dry-Season Water Table (C2)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)       □ Saturation Visible on Aerial Imager (D2)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roots (C3)       □ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)       □ Shallow Aquitard (D3)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)       □ FAC-Neutral Test (D5)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)       □ Raised Ant Mounds (D6) (LRR         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)       □ Frost-Heave Hummocks (D7)         □ Sparsely Vegetated Concave Surface (B8)       □ Depth (inches):	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (20) (2 or particulation (2) or particulators (20) (2 or particulators (20	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulators (20) (2 or particulation (2) or particulators (20) (2 or particulators (20	LRA 1, 2,
Wetland Hydrology Indicators:         Primary Indicators (minimum of one required; check all that apply)       Secondary Indicators (2 or more regulated; check all that apply)         □ Surface Water (A1)       □ Water-Stained Leaves (B9) (MRA       □ Water-Stained Leaves (B9) (MRA         □ High Water Table (A2)       1, 2, 4A, and 4B)       4A, and 4B)         □ Saturation (A3)       □ Salt Crust (B11)       □ Drainage Patterns (B10)         □ Water Marks (B1)       □ Aquatic Invertebrates (B13)       □ Dry-Season Water Table (C2)         □ Sediment Deposits (B2)       □ Hydrogen Sulfide Odor (C1)       □ Saturation Visible on Aerial Image Patterns (B10)         □ Drift Deposits (B3)       □ Oxidized Rhizospheres along Living Roots (C3)       ☑ Geomorphic Position (D2)         □ Algal Mat or Crust (B4)       □ Presence of Reduced Iron (C4)       □ Shallow Aquitard (D3)         □ Iron Deposits (B5)       □ Recent Iron Reduction in Tilled Soils (C6)       □ FAC-Neutral Test (D5)         □ Surface Soil Cracks (B6)       □ Stunted or Stressed Plants (D1) (LRR A)       □ Raised Ant Mounds (D6) (LRR         □ Inundation Visible on Aerial Imagery (B7)       □ Other (Explain in Remarks)       □ Frost-Heave Hummocks (D7)         □ Sparsely Vegetated Concave Surface (B8)       □ Depth (inches):	LRA 1, 2,

### Appendix D Ecology Wetland Rating Forms and Figures

# -Barriey neadows

# Rating Summary — Western Washington

Pate of site visit: 6/3/13Name of wetland (or iD#): Sa〵~(6) Rated by F、ハハハッ

Trained by Ecology? Yes No Date of training 2015 HGM Class used for rating 24 O

Wetland has multiple HGM classes? 124 N NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map  $\frac{2-O \cdot (G)}{2-O \cdot (G)}$ 

OVERALL WETLAND CATEGORY Websed on functions or special characteristics

Category of wetland based on FUNCTIONS

\_Category I → Total score = 23 - 27

Category II - Total score = 20 - 22

\_Category III - Total score = 16 - 19

Score for each function based on three ratings (order of ratings is not important)

Habitat \_Category IV ~ Total score = 9 - 15 Hydrologic Improving Water Quality FUNCTION

TOTAL 12 3 m Circle ting appropriate ratings 3 Landscape Potential Score Based on Site Potential

6= H,M,L 6= M,M,M

Š

5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

9=H,H,H=8 8=H,H,M 7=H,H,L 7=H,M,M

2. Category based on SPECIAL CHARACTERISTICS of wedland

-	<b>-</b>							
CATEGORY	H	×	×	Ħ	I	и и	I II III II	
CHARACTERISTIC	Mother serve	Bog	Mature Forest	Old Growth Forest	Coastal Lagoon	Interdunal	None of the above	

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

Wetland name or number

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

Depressional Wetlands

7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	3/
To answer questions: D13, H11, H14, D14, H12 D14, L04, D 22, D52 D43, D53 H24, H22, H28	D 3.3
ioce) c addea to another figure thand adge - including to the Ecology website)	Las tound (from web)
ded to map of hydropen for the wettend (can b not 1, fan from entire we at and undistuched hab [30] listed waters in bail for WRIA in which in bail	
Wap of:  Covardin plant classes  Hydropencias  Location of outlest (can be ended to map of hydroparteds)  Boundary of area within 1350 for the westland (can be added to another figure)  Map of the contributing basin  I am Polygons for scenesible habitest and non-structure and the westland of an outlest figure)  Polygons for accessible habitest and underturbed habites  Sereen capture of map of 303(q) issed waters in habites  Sereen capture of map of 303(q) issed waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the waters in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capture of map of 303(q), the water in habites  Sereen capt	Riverine Wetlands
를이포크웨 <u>모임 명입업</u>	<i>≊</i>

	To answer questions:	1	H 1,2	R11	R2.4	R12 E13	0.73	1 THE	62.2, R 2.3, R 5.2	A 44, H 22, H 23	83.1	233 535	1.0.4. N.D.3	
Map of:	tolansas		านเนต์ต ดอยากระดากร	boundary of area within 150 ft of the working of fear.	Plant cover of trees, shrubs, and harbaceaus wi	m (was here)			1d adge - Including		Screen capture of list of TMD1 starting in basin (from Ecology website)			

To answer questions: List L4s, Hist, Hist, Hist List L2s Hist, Hist Hist, Hist Hist, Hist Hist, Hist Hist, Hist	13.1,13.2	133
Map of: Cowardin plant classes Plent cover of trees, shrubs, and herbaceous plants Beundary of area within 120 ft of the welsand (can be added to another flaure) I km Polygons Area within 120 ft of the welsand (can be added to another flaure) Debygons for accessible habitett and undisquebed habites accessible habitett and undisquebed habites accessible habitett and undisquebed habites.	Surcen capture of list of TMDLs for WRIA in which with the	(Trom web)
Map of:  Cowardin plant classac Pleate cover of troes, sinules, and herbaceous plants Boundary of area within 150 ft of the wetland (can be add I fan Polygons for accessible hebitet and undicturbed hebiter Sereen explanes of map of \$0.05() listed waters in hose free	Sargen capture of list of TMDLs for	Slone Mottlende

e Wetlands	
Slop	

To miswer questions: Figure #	H12 513 541	521, 551 H21, H22, H23	S31, S32, S3.3
	and herbaccous plants rubs, and herbaccous plants		om Ecology website) found (from web)
Cowardin plant decrees Hydropariods	Flant cover of dense trees, shrubs, and herbaceous plants Plant cover of dense, rigid trees, shrubs, and nerbaceous plants [con be ended to figure above] Benrichar, see a figure above]	Conneary or 15-0 it buffer (can be added to another figure)  1 km Polygons Area that extends 1 km from antire wetland c  Polygons for accessible hebitat and undisturbed habitan	Serven capture of map of 303(d) listed waters in busin (fits Serven capture of list of TMDLs for WRIA in which unit is Woland Rating System for Western Was 204, 1

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# HGM Classification of Wetlands in Western Washington

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

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

Arethe water levels in the entire unit usually controlled by tides except during floods?

NO, So to 2

XES – 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)

is Saltwater Tidal Fringe it is an Estuarine wetland and is not scored. This method cannot be used to fyour wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. YES – Freshwater Tidal Fringe score functions for estuarine wetlands. 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,2 go to 3

YES – The wetland class is Flats Hyour wetland can be classified as a Flats wetland, use the form for Depressional wetlands 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)

YES – The wetland class is Lake Bringe (Lacustrine Fringe)

 Does the entire wetland unit meet all of the following criteria? The wetland is on a slope (slope can be very gradual)

NO-go to 4

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.

She water leaves the wetland without being impounded.

NO 4 go to 5

YES – The wetland class is Slope

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

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

ıı

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

The overbank flooding occurs at least once every 2 years.

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(C)

Wethand name or number

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

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

NO - go to 7

YES – The wetland class is Depressional

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

NO)- go to 8

YES — The wetland class is Depressional

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

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

HGM classes within the wetland unit	HGM class to
being rated	use in rating
Slope + Riverine	一一名が存むし
Slope + Depressional	( Depressional )
Slope + Lake Fringe	Lake Fringe
Depressional → Riverine along stream	Depressional
within boundary of depression	
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other	Treat as
class of freshwater wetland	ESTUARINE

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

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			7	b			-		<sub>1</sub> 1						
Water Quality Functions - Indicators that the site functions to improve water quality bill characters to improve water quality	Wedand is a depression or flat depression (D) iscriming	Weddand has an intermittently flowing stream or ditch. Os bless hesses and properties a points as	Wotland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing outlet.  Wotland is a flat depression (QUESTION 7 on key), whose outlet that is permanently flowing points = 1.  A. The sell 2. In below the surface outlet is a permanently flowing.	D 1.3. Characteristics and distribution of partial for the clay or thue organic (use NRCS definitions)/Ves = 4 NS = 0 V Wethand has persistently uniqued allows the second characteristics and control of the control of the second control of the second characteristics and the second control of the second control of the second control of the second characteristics and the second control of th	Wortland has paraktent, ungrazed, plants > 2,50 or area Wortland has paraktent, ungrazed plants > 2,50 of area Workland has paraktent, ungrazed plants > 2,50 of area  Workland has paraktent, ungrazed plants < 2,50 of area  Points = 3  Points = 1	20 Special refers 1.	Arca seasonally ponded is >% total area of weetand Arca seasonally pended is >% total area of weetand Arca seasonally pended is >% total area of weetand Arca seasonally seasonal is >% total area of weetand	Total for D 1 pointed is <2% total area of wedand points = 2	d the points in the bexes above	D.2.0. Does the landscape have the potential to support the water and the first page	- K	D.2.3. Are there septic systems within 150 ft of the wedand in land uses that generate pollutants? Yes 1 Now 0	otland that are not listed in	Total for D 2 Yes 1 No so	

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

 $\mathcal{O}$ D 3.2. is the westand in a basin or sub-basin where an aquals resource is on the 303(d) list?

10.3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality/anguer YES

If there is a TMDL for the basin in which the unit is found?

Yes E.2. No = 0 D 3.0. is the water quality improvement provided by the site valuable to society?

D 3.1. Does the wedand discharge directly (i.e., within 1 mi) to a stream, river, leke, or marine water that is on the society?

303(4) Iser

おいつでの 200 Record the rating on the first page 3.2- Whotom crest basin tarr crest 3.3- Thou is Whatcom Creek watershad. Rating of Value | f score is: \\_24=H \_\_1=M \_0=L

Add the points in the boxes above

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Wetland name or number

	DEPRESSIONAL AND ET ATT	
	hydrologic Functions - Indicators that the site functions 2	$\int$
	From Does the playe the potential to reduce flooding and stream degradation	
	D 4.1. Chainchaichte of author water outflows from the week-all	$\int$
	vector as a depression or flat depression with	
	Wetland has an intermittendy flowing errors with 10 styles water leaving it (no outland	
	Weddind is a flat depression (QUESTICAL TO A Provided to the properties of parameters of points and	
	yeardend that an unconstricted, or alightly constricted	7
	CHACK CARDED OF EXPRESS OUTING WAS DOINGED ESTIMATED THE CONTROL THAT IS DOMINING THOM IN THE ST.	1
	Warden of others measure from the surface of permanent will be bottom of the author Francisco	1
	Maries of possible and a property and a suffice or better of the state of the suffice of the suf	
	Marie are replaced 2 fit to < 3 ft from surface of borrow of and a points = 7	
	Marks of bonding less than a to the surface that true water points = 3	_ _
	D 4.3. Compliantion of the points at points at	
	confidential and working to stotage in the watershed; Estimate the points of	
	The tires of the hard a title wetland to the grea of the worldard in his law of upstream bash	
	The gree of the hard a fact than 10 thmes the area of the unit	•
		_
	Endite worthand is in the miles than 100 times the area of the unit	_
		_ 1
	: Sujod	
	n the bo	1
	D.S.O. Does the landsome   Portie M ( 10.5 = 1	_
	D 5.1. Done to the name to be able to support hydrologic functions to the first page	page
		ſ
	DS.2 is >10% of the area within 150 th news	7
	D 5.3 is money.	
	>4 residence/or	
	Total for D.5	T
•	No. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	_
_	Add the points in the boxes above 15 1 3 of 7 mm Add the points in the boxes above	
_	D.6.0. Are the hydrologic franctions on the franctions on the franction on the franction	]
		250
	the wetland unit believed for the second of	
	The Wordand captures surface wenter the plants. Choose the highest score if more than one than one than the surface second	
	damaged human or natural resources (A. P. L. Would otherwise flow down-gradient into arress-whom 41	_
_	Flooding occurs in a sub-bosin time is investigated to same reddej:	_
_	own-gradient of unit,	
_	Plooding from groundwater is an issue in the enth-new second control of the contr	_
_		_
	Water stored by the wetland cannot exemple as a constrained by human or natural conditions.	_
;	Thato are no problems with flooding dominance.	
	6.2. Has the site bean identified as i	
<u> </u>	inportant for flood storage or flood conveyance in a referent flood	-
ᅱ	Total for D 6	
_	1	-

Rating of Value If score is: 2-4 = 11 V 3 = M 0 = 1 Wetland Rating System for Western W4s 2014 Update Rating Form – Effective January 1, 2015

Add the points in the boxes above
Record the rating on the first page

Nulater Quality Functions - indicators that the size functions to improve we water quality?  R.1.0. Does the size have the potential to improve water quality?  R.1.1. Area of surface depressions within the Riverine water quality?  R.1.1. Area of surface depressions within the Riverine water quality?  Depressions cover > ½ area of wedland Depressions cover > ½ area of wedland Depressions present but cover < ½ area of wedland No depressions present the cover < ½ area of wedland No depressions present the cover < ½ area of the wedland No depressions pressent Trees or sirules > ½ area of the wedland Trees or sirules > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Trees or sirules > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Trees, shrulbs, and ungrazed herbaceous < ½, area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland Herbaceous plants (> 6 in high) > ½ area of the wedland high wedland Herbaceous plants and ungrazed dity or within high or within high or new clants generate pollutants?  R.2.1. is the wedland diong a stream or fiver that has TMDL limits for nurfients, toxics, or pathogens?  R.3.1. is the water qualify improvement provided by the site valuable to soice by?  R.3.2. Has the site been identified in a	ster quality	ceventi politta 28 politta 4 politta a 2	points a 8 points a 6 points a 6 points a 3 points a 0	Record the rating on the plant page Yes # Z No # O	n this boxes above Record the rething on the first page to one within 1 mi?  Year 1 No # 0	Yeshi Nomo mity? (answer Yeshi Nomo
	KIVEKINE AND PRESHWALEK HUAL PKINGE WELLANDS. Water Quality Functions - Indicators that the site functions to improve water quality he site have the notes of the improve water quality.	N. L.U., Does the size have the potential to improve water quality?  R.L.L. Area of surface depressions within the Riverina wetland that can trop sedimants during a flooding event: Depressions cover > X, area of wetland Depressions cover > X, area of wetland Depressions present but cover < X, area of wetland No depressions present but cover < X, area of wetland No depressions present the cover < X, area of wetland	nt parson halght, not Cowardin ej.	O-5 PL (Sefector quality function of the An incorporated area? (Solds, pastures, or forests that in See that generate pollutants? than finat are not listed in questi	Total for R.2  Rating of Inntscape Potential/Fiscre in 3-6 = H 1 or 2 = M 0 = L  R.3.0. Is the water quality improvement provided by the site valuable to society?  R.3.1. is the water quality improvement provided by the site valuable to society?  R.3.1. is the water quality in stream or fiver that is on the 303(d) list or on a tributary that drains to one within 1 m?  Y. a. 1 No = 0  Y. a. 1 No = 0	Yes # 1. No # 0

Wetland name or number

R 4.0. Does the site have the potential to reduce flooding and erosion?  R 4.1. Characteristics of the overbank atorage the, wordand provides:  Estimate the overgrew width of the weldand perpendicular to the direction of the flow and the width of the stream to river channel (listance between banks).  If the radio is more than 2D  If the radio is more than 2D  If the radio is 15  If the radio is 15  If the radio is 15  If the radio is 25  If the ordio is 25  If the ordio is 25  If the ordio is 45  If the ordio is 25  If the ordio is 35  If the ordio is 45  If the ordio	
is direction of the flow and the Width of he ratios (average width of wetland)/(of	
Treat or fiver channel (distance between banks). Calculate the ratio: (average width of werland)/(average vidth of stream between hanks).  If the ratio is more than 20  If the ratio is 10-20  If the ratio is 10-20  If the ratio is 5-410  If the ratio is 5-410  If the ratio is 1-45  If the ratio is 1-45  If the ratio is 1-5	
f the ratio is more than 2D  f the ratio is 10-20  f tha ratio is 10-20  f tha ratio is 115  f that ratio is 115  f tha	1
f the ratio is 10-20 f tha ratio is 10-20 f tha ratio is 5-410 fithe ratio is 11-45 fithe ratio is 11-45 fithe ratio is 10-40 fithe ratio is 10-40 fithe ratio is 10-41 fither ratio is 10-	
f the ratio is 540 points = 4 points = 4 points = 4 points = 2 points = 3 points = 4 points = 7 p	
Fifthe ardio is 1.—5  fifthe ardio is 1.—5  fifthe radio is 1.—5  fifthe radio is 1.—  fifthe radio is 1.—  fifthe radio is 1.—  fifthe radio is 1.—  formation and plants that slow down water velocities during floods: Treat large woody dabrie as forest or shrub. Ghoose the points agreement for the best described floody floods and forest or shrub for 2 <sup>th</sup> , area OR conserved plants 2 the floods floods for the points 2 the floods for the floods floods floods for the floods fl	
The ratio is <1.  The ratio is <1.  The ratio is <1.  The ratio is <1.  The ratio is woody dabta as forest or should describe the ratio of the ratio is the ratio of the ratio of the ratio is the ratio	
The contractivities of plants that slow down water velecifies during flocds. Then large woody debits as forest or afruit. Choose the points slow grapropriate for the best description floolygous need to have >90% cover at person helpfut. These are NOT Covardia floored.  Forest or shrub for > <sup>1</sup> / <sub>2</sub> , area OR emergent plants > <sup>1</sup> / <sub>2</sub> area  Forest or shrub for > <sup>1</sup> / <sub>2</sub> , area OR emergent plants > <sup>1</sup> / <sub>2</sub> area  points = 1  points = 1  points = 1	15.7
ជ	i,
다	1
	1
יה מוסם סנו ממא	- At - Classe man
Rating of Site Potential if score is 12-16 p.H 6-11 p.M 0-5 p.l.	rnejust page
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?	
R.S.J. is the stream or river adjacant to the wordand downcut?	
R.5.2. Does the up-gradient watershed include a UGA or incorporated erea? Yes = 1 No = 0	
R.S.3. is the up-gradjent stream or river controlled by dams?	
Total for R.S 🧳 Add the points in the boxes above	
Ruting of Lundscape Potential if score is: 3 = H 1 or 2 = M 0 = 1 Record the rating on the first page	n the first page
R 6.0, Are the hydrologic-functions provided by the site valuable to society?	
R.62.L. Distance to the nearest greas downstream that have flooding problems?  Choose the description that best fits the site.  The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.e., houses or solmon redda)	
gradient	
R 6.2. Has the site been identified as important for flood storags or flood conveyance in a regional flood control plan?  Year 2 Now 0	211
Total for R 6	

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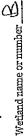
N 3 4 or more types present points = 3
3 types present points = 2
2 types present points = 1
4 types present points = 0 H 1.1. Structure of plant community indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the westand. Up to 10 patches may be combined for each class to meet the threshold of % as or more than 10% of the unit if it is smaller than 2.5 as, Add the number of structures checked. 3 structures: points #2 1 structure: points = 0 points # 1 4 structures or more: points # 4 Different patakes of the same species can be combined to meet the size threshold and you do not have to name 2 points 2 points Chock the types of water regimes (hydroporlods) present within the wetland. The water regime has to cover Docide from the diagrams below whether interspension among Cowardin plants classes (described in H 1.1), or the classos and unvegetated areas (can include open water or muditate) 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. \_The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaccous, mess/ground-sovar) points = 2 0 the species. Do not include Eurasian miffoll, reed cananygrass, purple loosestrife, Canadian thistle Moderate 42 points These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat more than 10% of the wetland or % ac to count (see text for descriptions of hydroperiods). Count the number of plant species in the wedand that cover at least 10 ft. Permanantly flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland H 1.0. Does the site have the potential to provide habitat? Strub-shrub (areas where shrubs have > 30% cover) Folested (areas where trees have > 30% cover) Low = 1 point If the unit has a Forested class, check if Demaionally flooded or Inundated Seasonally flooded or inundated 15 Freshwater tidal wetland 5-19 species To the second Laice Fringe wetland H 1.3. Richness of plant species H 1.4. Interspension of habitats Saturated only H 1.2. Hydroperlods None,= 0 points All three diagrams ara HIGH = Spoints in this row

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Wetland name or number A

H 1.5. Special nabitar frantares  Chock the habitar frantares that are present in the wetland. The number of checks is the number of points.  Sanding snage (abb > 4 in) within the wetland (> 4 in diameter and 6 ft long).	
Understate thanks are present for at least 6.6 ft (2 m) and/or overthanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with tho wetland, for at least 38 ft (10 m) slope) OR signs of recent between that might be used by beaver or muchtar for denning (> 30 degree where wood is exposed)	
Art Bears 26 as of thin-stammed persistent plants or woody branches are present in areas that are  Aftranently or seasonally inundated (structures for egg-toying by amphibians)  strott)  Total for H. 1.	
Rating of Site Potential Macore Is: 15-18 = H V 7-14 = M O-6 = L	1
H 2.1. According to include only habitet that already abute welcome of the site?  Calculate:	g
If total accessible habitar is:  > 7,6 (39.3%) of 1 km Polygon  20.33% of 1 km Polygon	T
10-13% of 1 km Polygon  < 4.0% of 1 km Polygon  H 2.2. Undisturbed habitati in 1 km Polygon around the weetand,  Calculate:  % Undisturbed habitati in 1 km Polygon around the weetand,  Calculate:  % Undisturbed habitati in 1 km Polygon around the weetand,  Calculate:  % Undisturbed habitati in 1 km Polygon around the weetand,	<del>_</del>
Undisturbed habitat > 50% of Polygon Undisturbed habitat > 50% of Polygon Undisturbed habitat 10-50% and it 4-3 parches Undisturbed habitat 10-50% and it 4-3 parches Undisturbed habitat 10-50% and is 2 parches Undisturbed habitat 10-50% of 1 km Polygon H 2.3. Land use intensity in 1 km Polygon; if	Ι
Add the points	
aluable to society? valued in laws, regulati	1. 🗂
The necest ANY of the following critaria:  It has 8 or more priority habitats within 100 m (see noxt page)  It provides habitat for Threatened or Endangened spacies (any plant or animal on the state or foderal lists)  It is a Wedand of High Conservation Value as determined by the Department of Natural Resources  It has been categorized as an interportant habitat site in a local or regional comprehenance Shoreline Mactar Plan, or in a watershed plan, when so has a local or regional comprehensive plan, in a	
Ste does not meet any of the etheye above  Rating of Value   f score is_2 = H \ \sum_1 = W \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
H2.0 used #1s From Wet B. Wetland B. more unbanized. whim I have	

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## WDFW Priority Habitats

Priority habitats listed by WDEW (see complete descriptions of WDEW priority habitate, and the counties in which they can be found, in: Weshington Department of Fish and Wildlife, 2008. Priority Habitat and Species List. Olympia, Washington, 1177 pp. http://weikw.wa.gov/publications/20065/weikw.wa.gov/conservation/pbs/list/).

Count how many of the following priority habitats are Within 330 (f (1,00 m) of the wedand unit. NOTE: This question is Independent of the land use between the wedand unit and the priority habitat.

- Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- Biodivorsity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and whelle (Hil descriptions in WDFW PHS report).
- Herbaceous Balds: Variable size patches of grass and forbs on shallow solfs over bedrock.
- Old-growth/Mature forests: Old-growth west.of.Casanda 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.) dub or > 200 years of age, Mainre forests Standa with average diameters exceeding 21 in (53 cm.) dub; crown cover may be lass than 1,00%; 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 Casande crest.
  - Orogon White Oals: Woodland stands of pure cak or cak/conifer associations where canopy coverage of the cak componentis important full descriptions in WDFW PHS report p. 1.58 sac web link above).
- Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquade and terrestrial ecosystems which mutually influence each other.
- Westelde Prakties: Horbaccous, non-forcsted plant communities that can cliner take the form of a dry prairie or a wet prairie (full descriptions in WDFW PH3 report p. 461 322 web link above).
- instreum: The combination of physical, blological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. l
- Nearshores. Ralatively 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). 1
  - Cavess. A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, i.e., or other geological formations and is large enough to contain a human.
- --- Cliffs. Greater than 25 ft (7.5 m) high and occurring below 5000 ft elevation.
- Tahus: Komogenous areas of rock rubble ranging in average size 0.5 6.5 ft (0.15 2.0 m), composed of basait, andesite, apploysed of the property rock, including ripray slides and mine tallings. May be associated with ellfix.
- 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 of breest 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 and, and > 20 ft (6 m) long.

Notes All vegotated westands are by definition a priority habitat but are not included in this list because they are addressed

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Wetland name or number.

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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Wetland name or number	SC 4.0. Forested Wetlands	Does the wotland have at I

spirated menands	
Does the workland have at least 1 continuous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitate? If you enswer YES you will still need to rate the workland becast on its functions. — Old-growth forests (work of Cascade or eat); Stands of at least two tree species, forming a multi-layered anopy with occasional small openings with at least 8 trees/ac (20 trees/hz) forming a multi-layered age OR have a diameter to know the hight (elb.) of each is flat of the cascade CReat). Stands when we have	70
SC 5.0. Wedands in Coastal Lagoons  Pos = Catagory   No Not a forested wetland for this section  Does the writing most all agoons	Cat.1
The working fless is a depression adjacent to maine wetland in a coastal lagoon?  marine waters by sandantic, gravel banic, altified, or, fless frequently, rocks  "The lagoon in which the wetland the located continuous, or frequently, rocks	
SCS.1. Does the wetland meet all of the following three conditions? Not a wetland in a coastal lagoon ——The wetland is relevant to following three conditions?	Gr.
than 20% cover of signatured (has no disking, ditching, filling, cultivation, grazing), and has leas — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- The wetland is larger than ½,00 ac (4350 ft²)	Cat. II
SC 6.0. Interdunal Wediands	
you missery for 90 you will still need for eatlied the Wostom Boundary of Upland Ownership or WBUO)? If In practical terms that means the following geographic areas:  — Long Boach Paninsula: Lands west of SR 103  — Grayland-Versport Lands wast of SR 105  — Comment Annership or WBUO)? 15	
Vas—Go to SC 6.1 (No + pot an interdired washed of SR 115 and SR 109	<u> </u>
SC 6.1. Is the weetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H.H.H. or H.H.H.M. SC 6.2. Is the weetland 1 ac or larger, or is it in a messic of weetlands that is 1 ac or largery 1 No - Go to SC 6.2.	Gt. II
ory II 1 and 1 a	Cat. III
Gategory of working based on Special Characteristics If you answered No for all tensor cases. An active cases and the case of	≱ કુ
on of per, anath. Not Applicable, on Summary Form	3

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

- Barkley Meadows Wetland name or number

# Rating Summary – Western Washington

Date of site visit: 6/13/18 Trained by Ecology? Ves No Date of training 2 9 15 Name of wetland (or ID#): Ranklin France.
Rated by E. M. N. HGM Class used for rating A. P. P.

Wetland has multiple HGM classes?

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

OVERALL WETLAND CATEGORY (based on functions / or special characteristics)

1. Category of wetland based on FUNCTIONS

\_Category I ~ Total score = 23 ~ 27

\_Category III ~ Total score = 16 - 19 Category II - Total score = 20 - 22

Category IV ~ Total score = 9 - 15

Score for each function based on three ratings (Order of ratings is not important)

M'H'H=8 8=H'H'H

7=H,M,M 6 = M,M,N

6=H,M,1

5=H,L,L 5=M,M,L

7=H,H,L

Circle the appropriate rati Hydrologic Improving Water Quality FUNCTION Site Potential

TOTAL Σ € ± 33 量 Landscape Potential Score Based on 2. Category based on SPECIAL CHARACTERISTICS of wetland

	CHARACTERICA		
	Oli Constitution of the second	CATERODY	
	Estuarine	CALCOOK	
		-	
	Wedland of High Conservation Value	*	
	Row	-	
		,	
	Mature Forest	-	
		F	
	Old Growth Forest	-	
		_	
	Coastal Lagoon		
		1	
	Interdunal		
		I H H I	
_	wone or the above		
•		`	

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Wetland name or number S

# Maps and figures required to answer questions correctly for

Depressional Wetlands

To answer questions: Figure II D.13, H.14, H.14 2 2 D.14, H.12 3 D.14, D.12, D.13 2 D.14, D.12, D.12 3 D.14, D.12, D.13 3 D.14, D.14, D.15, D.15	D33
Wap of:  Covardin plant cleases  Hydroperiods  Hydroperiods  Location of outet (am be added to map of hydroperiods)  Boundary of stress within 150 ft of the wedand (can be added to another figure)  Map of the contributing beain  I km Polygon: Area that extends 1 fm from antire wething edge - incituding  Polygons for accessible habiter and undisturbed habiter  Serien capture of map of 905(d) listed waters in basio (from Ecology website)  Serien capture of inte of TMDIn should	which in which unit is found (from web)
Map oft  Cowardin plant classes  Everyoride plant classes  Everyorides   - Riverine Wetlands	

	1								
	To answer questions:	H11, H1,4	R11	R24	R4.1	R22, R23, R52	n 2.1, H 2.2, H 2.3	R3.1	n 5.4, K 3.3
			Boundary of area within 150 ft of the wetland form he median	Width of unitive, width of the control plants	Map of the contributing basin	id adge "Including		Т	
Map of:	Cowardin plant classes	Ponded depressions	Boundary of area within	Width of unit vs. width o	Map of the contributing basin	4 km Polygon: Area that a Polygons for accessible 6.	Screen capture of map of	rices capture of list of 7	Lake Fringe Wetlands

Figures #					_
To answer questions:	113, 141, H11, H1,4		2, H 2.3		
To answe		122	H21, H22, H23	13.1, 13.2	1
	Boundary of area within 150 th. 454	another Maure)	- including	Screen capture of list of TMDLs for WRIA in which makes	TOTH WAS
	В	1 km Polygon: Area that extends 1 km from enthre weether	abitat	Screen capture of list of TMDLs for WRIA in which with a	
	rbaccous plan	on from entire	undisturbed h	WRIA in which	
83	Boundary of area within 150 th of the	hat extends 1	Screen capture of man of sacetan and undisturbed habitan	of TMDLs for	
Cowardin plant classes	ary of area wit	olygon: Area t	capture of me	capture of list	
Cowan	Bound	1 Gar Pr	Screen	Scroen	

Slope Wetlands

	To answer questions: Figure #	1	H1.2	513	54.1	521.581	H21, H22, H73		531,532	533	2
			bs, and herbaceous plants	shrubs, and herbaceous plants		1 km Polygon: Area that extends 1 km from	nd undisturbed habitant edge - including	Screen capture of map of 303(d) listed waters in basin (from East	Areas a supporte of list of TMDLs for WRIA in which unit is found (from the	tern WA: 2014 Therete	7, 2015
Cowardin plant of	Hydronerhode	Pient control of	Plant cover or dense trees, shrubs, and herbaceous plants	Can be added to a spid trees, shrubs, and herbaceous plants	Boundary of 150 ft hitter form	1 km Polygon: Area that extends 1 km from	polygons for accessible habitat and undisturbed habitat	Screen capture of map of 303(d)	Manual Capture of list of TMDLs f	Wednesd Maring System for Western WA: 2014 The	want rorm - Effective January 1, 2015



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# HGM Classification of Wetlands in Western Washington

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

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

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

NO 2 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)

fyour wetland can be classified as a Freshwater Tidal Fringe use the forms for Riverine wetlands. If it is Salbwater Tidal Pringe it is an Estuarine wedand and is not scored. This method cannot be used to YES – Freshwater Tidal Fringe score functions for estuarine wetlands. The entire wedand 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.

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

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;

kt least 30% of the open water area is deeper than 6.6 ft (2 m m)

YES – The wetland class is Lake Bringe (Lacustrine Fringe)

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

NO go to 4

Ihe 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 wetland is on a slope (slope can be very gradual

The water leaves the wetland without being impounded

NO - go to 5

The wetland class is Slope YES J

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

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

The overbank flooding occurs at least once every 2 years

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Wetland name or number

-POTE: The Riverine unit can contain depressions that are filled with water when the river is not YES – The wetland class is Riverime -go to 6 flooding

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

NO - go to 7

YES - the wetland class is Depressional

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

NO - go to 8

YES – The wetland class is Depressional

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

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

HGM class to	use in rating	Riverine	( Depressional )	hake Ednge	Depressional		Depressional	Riverine	Treat as	ESTUARINE
HGM classes within the wetland unit	ออเมชิ เสเตต	Slope + Riverine	Slope + Depressional	Slope + Lake Fringe	Depressional + Riverine along stream	within boundary of depression	Depressional + Lake Fringe	Riverine + Lake Fringe	Salt Water Tidal Fringe and any other	class of freshwater wetland
	_		个	`						

more than 2 HGM classes within a wetland boundary, classify the wetland as Depressional for the lfyou are still unable to determine which of the above criteria apply to your wetland, or ifyou

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4

10 m	7	5
Water Quality Functions – Indicators that the site functions to improve water quality  D.1.0. Does the site have the potential to improve water quality?  D.1.1. Chain-confedes of surface water outflows from the weeting:  Wethind is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlot).  Wethind has an intermittently flowing arream or ditch, OR highly constricted permanently flowing outlot.  Wethind is a flut depression (QUESTION 7 on key), whose outlot that is permanently flowing outlot.  Wethind is a flut depression (QUESTION 7 on key), whose outlot that is permanently flowing points #1.  D.1.2. Chimosopticate and depression (QUESTION 7 on key), whose outlot is a permanently flowing glich.  D.1.3. Chimosopticate and depression (QUESTION 7 on key), whose outlot that is permanently flowing glich.  D.1.3. Chimosopticate and depression (QUESTION 7 on key), whose outlot is a permanently flowing glich.  Wethind has persistent, urgrazed, plants > 95% of area  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent, urgrazed plants > 15 so farea  Wethind has persistent urgrazed plants > 15 s	of the project to the c	P. S. S. Record II Score IS: 12-46 = H / 6-41 = M 0-5 = 1 Record the miles and see a second the miles and second the mil

D 2.0. Does the landscape have the potential to support the water quality function of the sites?

D 2.1. Does the wedand unit receive atomiwater discharges?

D 2.2. Is > 10% of the area within 150 it of the wedand in land uses that generate pollutants?

D 2.3. Are there soptic systems within 250 ft of the wedand in land uses that generate pollutants?

Ver = 1 No = 0

Ver = 1 No =

D 3.2. Is the wettend in a basin or sub-basin where an aquatic resource is on the 302(d) list?

D 3.3. Has the size been identified in a watershed or local plan as important for maintaining water quality (prever YES)

Total for D 3

Rating of Value If score is: \( \int 2.4 = H \)

Add the boints in the boxes above \( \frac{2}{3} \)

Rating of Value is soone is: \( \int 2.4 = H \)

Total for D 3

3,2. Whotean Check basine Farer Check 205(d) (3) + 3,3. Whotean Check has TMD2

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Wetland name or number 3

Hydrologic Functions - Indicato  Does the site have the potential to the control of the depression of the the sargh with no outlet, measure from the sargh Wards of ponding and at the control of the outlet.  Marke of ponding and at the <a (sin)="" 0.5="" 100="" area="" authors="" basin="" cites="" contributing="" control="" depression="" fil<="" filts="" ft="" hreat="" in="" is="" less="" more="" note="" of="" outlet="" sargh="" th="" than="" the="" to="" wards="" world=""><th>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degreed at the site functions to reduce flooding and stream degreed at the site functions to reduce flooding and stream degreed at the site is the site functions to reduce flooding and stream degreed at the site is the</th><th>D 4.1. Characteristis of surface water outflews from the wethind: Wethind is a planning.</th><th>Weddand has an intermittened from the contract which no surface weter leaving it (no outlet) Weddand is a flat depression (QUESTION 7 on test), whose outlet is a permanently flowing outletpoints \( \varepsilon \). Wedstand has an unconstituted or eligibly constricted permanently flowing outletpoints \( \varepsilon \). Wether the permanently flowing outletpoints \( \varepsilon \). Wether the permanently flowing outletpoints \( \varepsilon \). Dozeth of technical data in unconstituted, or eligibly constricted, surface outlet that is permanently flowing disching the points \( \varepsilon \).</th><th>o the bottom of the outler a deepest part.</th><th>Marke are at least 6.5 ft to &lt;2 ft from surface or bottom of outlet The wetherd is a "headwater," wething Wethind is a "headwater," wething Wething is fight but maximal depressions on the surface that from surface is points = 3 Points = 3 Points = 3 Points = 3</th><th>ute the ratio of the area of upstream</th><th>The area of the basin is loss than 10 times the area of the unit  The area of the basin is 10 to 100 times the area of the unit  The area of the basin is more than 100 times the area of the unit  Entire weetland is in the Figure than 100 times the area of the unit  Points are</th><th></th><th>D S.O. Does the landscape have the potential to support hydrologic functions of the site?  D S.L. Does the wettand receive stormwater discherances</th><th>D 5.2. lo &gt;10% of the area within 150 ft of the weddand in land uses that generate excess mones</th><th>ored with int</th><th>id the point:</th><th>D 6.1. The unit is in a landscape that have a find the site valuable to society?  The western unit is landscape that have filed in the books and description that here must be the western unit is landscape. On one will be considered to the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that the descript</th><th>The wediand captures surface water that would otherwise flow down-gradient into areas where flooding near the most of Flooding secures flow down-gradient into areas where flooding has a sub-basin that is immediately a sulface or sulface in a sub-basin that is immediately and the sulface of flooding has</th><th>tent of unit adient. Be by human or natural condition n why.</th><th>D 6.2. Has the site been identified as important for flood storage or flood convexance in a second of points = 0</th><th>Noting of Value If score in: 2-4 = 11 1/4 = 10</th><th>7 = 0</th></a>	Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degreed at the site functions to reduce flooding and stream degreed at the site functions to reduce flooding and stream degreed at the site is the site functions to reduce flooding and stream degreed at the site is the	D 4.1. Characteristis of surface water outflews from the wethind: Wethind is a planning.	Weddand has an intermittened from the contract which no surface weter leaving it (no outlet) Weddand is a flat depression (QUESTION 7 on test), whose outlet is a permanently flowing outletpoints \( \varepsilon \). Wedstand has an unconstituted or eligibly constricted permanently flowing outletpoints \( \varepsilon \). Wether the permanently flowing outletpoints \( \varepsilon \). Wether the permanently flowing outletpoints \( \varepsilon \). Dozeth of technical data in unconstituted, or eligibly constricted, surface outlet that is permanently flowing disching the points \( \varepsilon \).	o the bottom of the outler a deepest part.	Marke are at least 6.5 ft to <2 ft from surface or bottom of outlet The wetherd is a "headwater," wething Wethind is a "headwater," wething Wething is fight but maximal depressions on the surface that from surface is points = 3 Points = 3 Points = 3 Points = 3	ute the ratio of the area of upstream	The area of the basin is loss than 10 times the area of the unit  The area of the basin is 10 to 100 times the area of the unit  The area of the basin is more than 100 times the area of the unit  Entire weetland is in the Figure than 100 times the area of the unit  Points are		D S.O. Does the landscape have the potential to support hydrologic functions of the site?  D S.L. Does the wettand receive stormwater discherances	D 5.2. lo >10% of the area within 150 ft of the weddand in land uses that generate excess mones	ored with int	id the point:	D 6.1. The unit is in a landscape that have a find the site valuable to society?  The western unit is landscape that have filed in the books and description that here must be the western unit is landscape. On one will be considered to the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that here must be set to describe the description that the descript	The wediand captures surface water that would otherwise flow down-gradient into areas where flooding near the most of Flooding secures flow down-gradient into areas where flooding has a sub-basin that is immediately a sulface or sulface in a sub-basin that is immediately and the sulface of flooding has	tent of unit adient. Be by human or natural condition n why.	D 6.2. Has the site been identified as important for flood storage or flood convexance in a second of points = 0	Noting of Value If score in: 2-4 = 11 1/4 = 10	7 = 0
--	--	--	---	---	--	---------------------------------------	--	--	--	---	---------------	---------------	--	---	---	--	--	-------

LO

<ul> <li>Water Quality Functions - Indicators that the site functions to improve water quality</li> </ul>
R 1.0. Does the site have the potential to improve water quality?
R 1.1. Area of surface depressions within the Rivarine wetland that can trap sediments during a flooding events
Depressions cover > 1/4 area of wotland
Depressions cover > % area of wetland
Dapracaions present but cover < 1/2 area of wetland
No depressions present
R.1.2. Structure of plants in the wethand (areas with >90% cover at person height, not Cowardin classes)
Trees or shrubs > 1/2 area of the wedand
Trees or shrubs > 1/2 area of the werland
Herbacocus plants (> 6 in high) > 2/3 area of the weatland
Herbaceous plants (> 5 In high) > \( \frac{1}{2} \), area of the westland
froce, shrubs, and ungrazed harbaceous $< \frac{1}{2}$ , area of the wettand
Total for R.1
Rating of Site Potential Macora is 12-16 = H 6-11 = M 0-5 = 1

t on the first page	3-6 H Lorza M Oal Record the rating on the first page	Rating of Landscapa Potential Hacoro iz 3-6 # H Lor Z = M O = L
Q	Add the points in the boxes above	Total for R.2
0	Yesmi Nomo	Other sources
	R 2.5. Are there other sources of pollutants coming Arto the wetland that are not listed in questions R 2.1-R 2.4	R 2.5. Are there other sources of pollutant
0	R 2.4. is > 10% of the area within 150 ft of the wedend in land uses that generate pollutarits? Yes = 1 No = 0	R 2.4, $\mu > 10\%$ of the area within 150 ft of
0	Yes=1 No=0	within the last 5 years?
	R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut	R 2.3. Does at least 10% of the contributin
	R 2.2 Does the contributing basin to the wedand include a UGA opincorporated area? Yes = 1 No = 0	R 2.2. Does the contributing basin to the w
	ed city or within its UGA? / Yes = 2 No = 0	R 2.1. is the wetland within an incorporated city or within its UGA?
	R.2.0. Does the landscape have the potential to support the water quaffy function of the site?	R 2.0. Does the landscape have the pot

R 3.0. is the water quality improvement provided by the site valuable to society?
R3.1. is the wedand along a stradm or river that is on the 503(d) list or on a tributary that drains to one within 1 mi?
Young Nome
R 3.2. is the watland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?
Yeswii Now 0
R 3.3. Has the starbeen identified in a watershed or local plan as important for maintaining water quality? (answer
YES If there is a TWDL for the drainage in which the unit is found) Yas ≈ 2 No ≈ 0
Total for 8 3
Rating of Value 15 score is: 2-4 a H 1 a M 0 = 1.

Wetland name or number

	מות מנו נו מות של היות אם משונו עו מאומן
R 4.0. Does the site have the potential to reduce flooding and erosion?	
R 4.1. Characteristics of the overbank storage the wetland provides:	
Estimate the avarage width of the watland perpendicular to the direction of the flow and the width of the stroam or river channel idizance batween banks. Calculate the ratio: (average width of werland)/innermen	of the flow and the width of the verses width of wetland Viewenae
width of stream between banks).	
If the ratio is more than 20	point##
If the ratio is 10-20	oolntr = 6
If the ratio is 5-<10	points = 4
If the ratio is 1,45	points = 2
If the ratio is < 1	points = 1
R 4.2. Chairacteristics of plants that slow down water velocities during floods: Trantlarge woody achris as forest or	Frat large woody debris as forest or
snita. Thosse the points appropriate for the pest description (polygops need to have 200% coller at parton halter those are MOT Court for charge.)	need to have >>U% cover at person
Energine street at the 1921 segment construct of the Second of the secon	7 a milon
Forest or shrub for > \\ \frac{1}{2} \text{ area OR emergent plants > \\ \frac{1}{2} \text{ area}	oolnts = 4
Plants do not meet above criteria	points = 0
Total for R 4	Add the points in the boxes above
Rating of Site Potential If score is: 12-15 = H 6-11 = M 0-5 = 1	Record the rating on the first page
R. S.O. Does the landscape have the potential to support the hydrologic functions of the site?	functions of the site?
R.S.L. is the stream or river adjacent to the wedland downcat?	Yesh O Nort
R S.2. Does the up-gradient watershod include a UGA or incorporated area?	Yes al Now D
R 5.3. is the up-gradient stranger river controlled by dams?	THON ORSOY
Total for R.5	Add the points in the boxes above
Rating of Landscape Patential Mecore is: 3 = H 1 or 2 = M 0 = L	Record the rating on the first page
R 6.0. Are the hydrologic functions provided by the site valuable to society?	clety?
R 6.1. Distance to the nearest areas downstream that have Rooding problems?	25
Cheose the description that best fits the site. The sub-basin immediately down-analism of the wedland has flooding problems that result in damage to	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 No flooding problems anywhere downstream	points a 1 points a 0
R 5.2. Hus the site been identified as important for flood storage er flood conveyance in a regional flood control plan?	nveyance in a regional flood control plan?
Total for R 5	Add the points in the boxes above
Parties of Mains (ferrors) is 2.2 H TaM Dal	

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3 types present points = 2 types present points = 1 type present points = 1 type present points = 0 H.L.L. Structure of plant community, indicators are Covardin classes and strate within the Forestad class. Chock the Cowardin plant classes in the wedand. Up to 10 patches may be combined for each class to meet the threshold 4 structures or more: points = 4 3 structures: points # 2 2 structures: points # 1 Different patches of the same species can be combined to moet the size threshold and you do not have to name the species. Do not include Euresian milfoll, reed canarygrass, purple loosestife, Canadion thistle Points = 2 1 structure: points 4 or more types present points = 3 Spoints 2 points Deside from the diagrams below whether interspension among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (an include open water of muditats) 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. Chock the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the watend or % ac to count (*see text for descriptions of hydroper*iods). The Forested class has 8 out of 5 strata (canopy, sub-canopy, shrubs, herbaccous, moss/ground-cover) of M ac or more than 10% of the unit if it is analiar than 2.5 ac. Add the numbar of structures chacked, 0 Moderate = 2 points HABITAT FUNCTIONS - Indicators that she functions to provide important habitat These questions apply to wetlands of all HGM classes. Count the number of plant species in the wedland tint cover at least 10 ft. Permanently flowing stream or river in, or adjacent to, the westand Seasonally flowing stream in, or adjacent to, the wetland H 1.0. Does the site have the potential to provide habitat? Sarub-shrub (areas where shrubs have > 30% cover) \_Fgrested (areas where trees have > 80% cover) Low = 1 point If the unit has a Forested class, check if: Occasionally flooded or Inundated Seasonally flooded or inundated Freshwater tidal wetland 5-19 species < 5 spacies To a Lake Fringe wetland H 1.3. Richness of plant species H 1.4. Interspension of habitats Saturated only Emergent H 1.2. Hydroperiods None & O points All three diagrams are HIGH = Spoints in this row

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20 Wetland name or number

### WDFW Priority Habitats

Priority habitats listed by WDEW (see complete descriptions of WDEW priority habitats, and the counties in which they can 117 pp. http://wdfw.na.gov/publications/00165/wdfw.00165.adf or access the list from hare: http://wdfw.na.gov/publications/00165/wdfw.00165.adf or access the list from hare: http://wdfw.na.gov/conserration/phs/list.0

Counthow many of the following priority habitats are within 330 (f. (1,00 m) of the wetland unit. NOTE: This question is Independent of the land use between the wedand unit and the priority habitat.

- Aspen Sunds: Pure or mixed stands of aspen greater than Lac (0.4 ha).
- Biodivorsity Areas and Cornidors: Areas of habitat that are relatively important to various species of native fish and withine (full descriptions in WDFW PMS report).
- Herbaccous Balds: Variable size patches of grass and forbs on shallow solls over bedrock
- Old-growth/Mature forests: Old-growth west of Cassade crest.—Stands of at least 2 tree species, forming a multi-layered entopy with occasional small openings; with at least 2 frees/ac [720 trees/lat] > 32 it (31 cm) dib nor> 200 years of age, Maline forests.—Stands with average diameters exceeding Z1 in (53 cm) dib; crown cover may be less years of age, Maline Gorges, Sands with average quantity of large downed material is generally less than that found in old-growth; 80-200 years of an west of the Castade crest.
- Oregon White Oale Woodland stands of pure oak or oak/conlièr 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 torrestrial ecosystems which mutually influence each other.
- Westside Prairies: Herbaceous, non-foreated plant communities that can elther take the form of a dry prairie or a wet prairie from descriptions in WDFW PHS report p. 161 see web link above).
- Nearyhore: Relatively undisturbed nearshore habitats. Thuse include Coasall 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 goological formations and is large enough to contain a human.
- CLUS: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevadon.
- Talus: Homogenous areas of rock rubble ranging in average size 0.5 6.5 it (0.15 2.0 m), composed of basalt, andesite, axio, or sedimentary rock, including riprap sildes and mine tallings. 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 wildlie. Priority anass have a diameter at breast height of > 20 in (51 cm) in western
  Wachington and are > 65 ft (2 in) in height. Priority logs are > 12 in (30 cm) in diameter at the ingest end, and > 20 ft
  (6 in) long.

Note: All vegemmd wellands are by definition a priority habimt but are not included in this list because they are addressed

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Wetland name or number \_\_\_\_

#### ;; ;; g ä Category ij ä NOTE if you are uncertain about the extent of messes in the understory, you may substitute that ciferion by measuring the pH of the water that easps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the SC3.2. Does un area within the weekand unit have organic soils, either peats or musics, that are least than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ach, or that are floating on top of a lake or over bedrock, or an impermeable hardpan such as clay or volcanic ach, or that are floating on top of a lake or Does the wedland (or any part of the unit) moet both the enteria for soils and vegetation in bogs? Use the key below. If you will still need to rate the welland bessed on its functions. SC3.1. Does an area within the welland unit have organic soil herizons, either peats or mucks, that compose 16 in or SC3.1. One of the flust 32 in of the soil more). You - 60 to 50.3.2. No - 60 to 50.3.2. No = is not a bog Yes = Is a Category 1 bog No - Go to SC3.4 SC3.4, is an area with peats or mude; forested (> 30% cover) with Stita spruce, subalpine fit, western red cadar, wastern hamlock, ladgepole pine, qualding aspen, Engelmann spruce, or wastern white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover upder the canopy? SC2.0. Wedlands of High Conservation Value (WHCV) SC2.1. Has the WA Department of Natural Resources updated their website to include the list of Vestignals of High Yes—Go to SC2.2 (Ng—Go to SC2.2 Does an area with poats or mucks have more than 70% cover of mosses at ground lovel, AND at least a 30% (No hanta WHCV —The wordand has at least two of the following teatures; tidal channels, deprecalent with open water, or entire reus freekwater wordands. http://wwwd\_dnr.wra.gov/nhg/rofdssk/datasanrch/wnhpwcstanda.pdf (No)=Not a WHCv Yes — Controt WNHP/WDNR and go to SC2.4 (No)=Not a WHCv SC2.4, Has WDNR identified the wettand within the S/T/R as a Westand of High Consorvation Value and listed it on No m Note WHCL is the wectand within a National Wildiffe Refuge, National Park, National Estubry Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientiffe Reserve designated under WAC 232-30-1542 No = Not a WHCL No=Not an estuarine wetland No - Go to SC 1.2 —At least % of the landward edge of the wedand has a 100 ft buffer of shrub, ferest, or un-grazed or un----The wetland is relatively undicturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (if non-native species are Sparting, see page 25) CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS Check off any critaria that apply to the wedand. Circle the category when the appropriate criteria are met SC 1.2. Is the wettand unit at least 1 as in size and macts at least two of the following three conditions? Yes - 60 to SC3.3 Yes - Category 1 SC2.2., is the wetland listed on the WDNR database as a Watland of High Conservation Valua? SC2.2. Is the wedand in a Section/Township/Range that contains a Natural Harltage wediand? Yos a Category 1 Yeo a Catogory 1 Yes -Go to SC 1.1. Does the wetland meet the following criteria for Estuarine wetlands? plant species in Table 4 are present, the wetland is a bog. more of the first 32 in of the soil profile? covar of plant species listed in Table 4? With a sallnity greater than 0.5 ppt contiguous freshwater wetlands. --- The dominant water regime is tidal, mowed grassland. Estuarine wetlands -- Vegetated, and their website? Wetland Type SC 3.0, Bogs SC3.3. SC1.1 SC 1.0.

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No = Is not a bog

Yes = Is a Category 1 hog

### Wetland name or number B SC 4.0, Forested Wetlands

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Wetland name or number 3

Door At the thanks	
변상 급입부원립	
SC 5.0. Wetlands in Coastal Lapons  Does the warfand need a factor of the section	Cat. 1
The wethers at a constant lagroon?  The wethers is a deprecation adjacent to metine waters that is whelly or partially separated from the lagroon in which the wetterd is found in which the wetterd is found to the separated from the lagroon in which the wetterd is founded contains maked.	
SC 5.11. Does the weatand meet all of the following three conditions?  Yes — Go to SC 5.1. No Pivot a westand is a coastal lagoon for the colling of the following three conditions?  The westand is relatively underwheat here conditions?	Cat. 1
than 20% cover of aggressive, these of algebrasive, that of cliding, filling, cultivation, grazing), and has less —At least % of the landward edge of the wetland has a 100 ft buffer of species on p. 100).  mowed grassland, —The wetland is larger than <sup>2</sup> / <sub>10</sub> as (4350 ft <sup>2</sup> )	Cat:
SC 6.0. Interdunal Wetlands Is the Wetland Wetlands	
you answer you will still need to rate the Western Boundary of Upland Ownership or WBUO)? If In Practical terms that mean to following geographic areas:  Long Basch Paninatia: Landa west of \$35,000.  Grayband-Westport Landa west of \$35,000.	
Occan Shores-Copalic Lands wast of SR 115 and SR 109  Yes - Go to SC 61	Cat.I
SC 6.1. is the weetand 1. ac or larger and scores an 8 or 9 for the habitat functions on the form (rates 19.14.14 or 19.14.35.6.5)	 :
Yes = Category I no or larges, or is it in a mosnic of wedands that is 1 as or largery No = Go to SC 6.2 SC 6.3 In the second largery	7
ory II	Cat. III
Catagory of weating based on Speeds Characteristics If you arswared No for all tenses comes were the companies of the compani	Cat. IV
	<u>よ</u> 2

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Wetland name or number \(\Delta\) Sovered \(\Precedent\) Assured \(\Precedent\)

# RATING SUMMARY - Western Washington

Rated by <u>し、叶かんらん、まっかいしな</u> Trained by Ecology? <u>〈</u>Yes \_\_\_ No Date of training <u>19 行う</u>行 Date of site visit: 6-13-18 Wetland has multiple HGM classes? Y \_ N Name of wetland (or ID #): NNとナノエハウ ロ HGM Class used for rating ミトンター

OVERALL WETLAND CATEGORY 14 (based on functions or special characteristics)

## 1. Category of wetland based on FUNCTIONS

Category II - Total score = 20 - 22 \_Category I - Total score = 23 - 27

Category III - Total score = 16 - 19

Score for each function based on three ratings (order of ratings is not important)

9 = H,H,H = 8 M,H,H = 8

7 = H,M,M 6 = H,M,L 7 = H,H,L

\_Category IV - Total score = 9 - 15

FUNCTION	Improving Water Quality	δğ	ing iality	<b>T</b>	Hydrologic	ည်	1,000	Habitat	
					Circle t	he ap	propri	Circle the appropriate ratings	
Site Potential	x	Σ	M (L)	Ξ	H (M)	1	x	(T) M H	
Landscape Potential	<b>æ</b> (	Σ	n O M	Ξ	Σ	() ∑	æ	) ¤'	
Value	$\Xi$	Σ	٦,	ェ	<b>3</b> )	٦	x	M)	TOTAL
Score Based on Ratings	,				12			ナ	十

# 2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	II I
Wetland of High Conservation Value	I
Bog	*
Mature Forest	ı
Old Growth Forest	I
Coastal Lagoon	II I
Interdunal	и ш п
None of the above	47

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

Wetland name or number

### Depressional Wetlands

Cowardin plant classes D1.3,1	the same and the same and an arrangement of	
	D 1.3, H 1.1, H 1,4	
	D1.4, H1.2	
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	2,05.2	
Map of the contributing basin D 4.3, 1	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - Including H 2.1,	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	1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)   D 3.3	3	

### Riverine Wetlands

Map of: To answer questions:   Figure #	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperlods	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	R1.2, R4.2	
Width of unit vs. width of stream (can be added to another figure)	R4.1	
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	H21, H22, H2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	Raa	
Screen capture of iist of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	

### Lake Fringe Wetlands

6 = M,M,M 5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

Map of the second of the secon	To answer questions: Figure #	Figure #
Cowardin plant classes	L1.1, L4.1, H1.1, H1.4	
Plant cover of trees, shrubs, and herbaceous plants	L1.2	
Boundary of area within 150 ft of the wetland (can be added to another figure)	L2.2	
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)	L3.1, L3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	133	

### Slope Wetlands

Map of: 100 of the control of the co	To answer questions:	Figure #
Cowardin plant classes	H1.1, H1.4	Ċ1
Hydroperiods	H1.2	ŧŋ
Plant cover of dense trees, shrubs, and herbaceous plants	\$ 1.3	7
Plant cover of dense, rigid trees, shrubs, and herbaceous plants	S 4.1	2
(can be added to flgure above)		١
Boundary of 150 ft buffer (can be added to another figure)	\$ 2.1, \$ 5.1	7
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)	\$ 3.1, \$ 3.2	<b>i</b>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	53.3	tsi

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50' buffer

# HGM Classification of Wetlands in Western Washington

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

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

questions 1-7 apply, and go to Question 8.

NO 280 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)

If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to YES - Freshwater Tidal Fringe score functions for estuarine wetlands. 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 2

NO2 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)

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

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

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

'n

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

The overbank flooding occurs at least once every 2 years.

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Wetland name or number

 $\triangle$ 

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

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

NO - go to 7

YES - The wetland class is Depressional

maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be outlet ۲.

NO - go to 8

YES – The wetland class is Depressional

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

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

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

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

m

1.1.0. Does the like have the potential to improve water quality?  1.1.1. Average width dy parts along the lakeshore (use polygons of Coundrin classes):  Plants are more than 84 (2 m) wide  Plants are more than 84 (2 m) wide  Plants are more than 84 (2 m) wide and <18 ft  Plants are more than 84 (2 m) wide and <18 ft  Plants are more than 84 (2 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Plants are more than 84 (5 m) wide and <18 ft  Order plants that the read surplice of the vegetated area  Order plants that one not aquatic bed 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	s the shee have the potential to improve water quality?	
Plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants are more than 6 kg (2 mg) wide and 436 the plants and one include any open water in your explants of coverage. The harbaceous plants can be wide to the confirment of a sun wide for the unit is 250% of the vegofated area  Cover of herbaceous plants is 250% of the vegofated area  Cover of herbaceous plants is 250% of the vegofated area  Cover of herbaceous plants is 250% of the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Cover of herbaceous plants is 250 the vegofated area  Other plants that are not aquatic bed in 250 the mg and 250 the vegofated area of 250 the unit accordance to 1 mg and 250 the vegofated area of 250 the 25		
Plants are more than \$3 ff (10 m) wide  Plants are more than \$4 ff (5 m) wide and <33 ft  Plants are more than \$4 ff (5 m) wide and <33 ft  Plants are more than \$4 ff (5 m) wide and <35 ft  Plants are more than \$4 ff (5 m) wide and <36 ft  Plants are more than \$4 ff (5 m) wide and <36 ft  Plants are more than \$4 ff (5 m) wide and <16 ft  Plants are more than \$4 ff (5 m) wide and <16 ft  Plants are more than \$4 ff (5 m) wide and <16 ft  Plants are more than \$4 ff (5 m) wide and <16 ft  Plants are more than \$4 ff (5 m) wide and <16 ft  Plants are more than \$4 ff (5 m) wide and \$4 ff (5 m) \$4 ft  Plants are less than 6 ff wide  Cover of the plants that the weighted area  Cover of horbaccous plants is >050 ft the vegghted area  Cover of horbaccous plants is >05 ft the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 fo the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants is >0.5 for the vegghted area  Cover of horbaccous plants and open water of yell are plants are plant growth area are area of points are all the first page in land uses that generate pollutars?  Yes = 1. No = 0.  To a 1. No = 0.	age width Ot plants along the lakeshora (use polygons of Cowyrdin classes):	
are more thank 6 ft (5 m) wide and 433 ft.  are more thank 6 ft (5 m) wide and 438 ft.  are more than 8 ft (2 m) wide and 4.6 ft  are more than 8 ft (2 m) wide and 4.6 ft  to leas than 6 ft we prove that the wetland: Choose thy appropriate description that results  to refer to or 1 m be in wetland: Choose thy appropriate description that results  to minant form or as an understory in a shrub of forest community. These are not Cow-  re is total cover in the unit, but it can be in patches. Herbaceous does not include agus  of herbaceous plants is >½,3 of the vegatated area  of herbaceous plants is >½,3 of the vegatated area  of herbaceous plants is >½,3 of the vegatated area  of herbaceous plants is >½,3 of the vegatated area  blants that are not aquatic bed in >½,4 of the unit  blants that are not aquatic bed in >½,4 of the unit  contains that are not aquatic bed in >½,4 of the unit  blants and open water coyler >½,4 of the unit  Add the points in  blants and open water coyler >½,4 of the unit  Add the points in  blants and open water that are not aquatic bed in blants and open water that are an open water coyler >½,4 of the unit  Add the points in  black used by power base?  of the area within 150 ft of wetland unit on the upland side in land uses that gener  cost the area within 150 ft of wetland unit on the upland side in land uses that gener  descape Patential: if score is:	ts are more than 33 ft (10 m) wide	points # 6
Plants are more than \$\text{E}(2 m)\$ wilde and \$\text{4.5}\$ ft. Plants are more than \$\text{E}(2 m)\$ wilde and \$\text{4.5}\$ ft. Plants are more than \$\text{E}(2 m)\$ wilde and \$\text{4.5}\$ ft. Plants are more than \$\text{E}(2 m)\$ wilde and \$\text{4.5}\$ ft. Plants are more than \$\text{6.2}\$ ft. Wilde  Characteristics of the plants the weddand: Choose thy appropriate description that results in the highest the control of the plants and be either the dominant form or as an undestroy in a shub of forest community. These are not Cowardin classes. Area of cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the veggated area  Cover of herbaceous plants is \$200 k the unit  Add the points in the boxes above  Cover of herbaceous plants and open water cooler \$200 k the lake in the boxes above  A box of the area withy \$150 ft of wetland unit on the upland side in land uses that generate poliutants?  So the plants and open water quality is an issue (at least one aquatic resource highe basin is on the \$200 k in the base has in where water quality is an issue (at least one quality for my when he have have here have have the unit in the	ts are more than 16 ft (5 m) wide and <33 ft	points = 3
Plants are less than 6 ft wide  Doints = 0  Add the points in the boxes above  Assert le landscape Pérendal: If score le: 2 or 3 = H	ts are more than $6$ kt (2 m) wide and <16 ft	points # 1
Cover of herbaceous plants is 2-50% of the vestand: Choose the Appropriate description that results in the highest pepper pipelits, and do not include any open water in your explants of occurrenge. The herbaceous plants can be either the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant form or as an undeption in a since the dominant is 2-50% of the veggetated area of herbaceous plants is 2-50% of the veggetated area of herbaceous plants is 2-50% of the veggetated area of herbaceous plants is 2-50% of the veggetated area of herbaceous plants and open water copier 2-50% of the unit area not aquatic bed in 2-50% of the unit and open water copier 2-50% of the unit and open water copier 2-50% of the unit and open water copier 2-50% of the unit and unit an	ts are less than 6 ft wide	points = 0
And as now more moutes anywopen was an your expresses coverage.  The state of the unit, but it can be in getches. Herbaceous does not include ague of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is >5/3 of the vegofated area of herbaceous plants is of aguatic bed >5/4 of the vegofated area of herbaceous plants and open water cover >2/3 of the unit are not aquatic bed >5/4 of the unit area of plants and open water cover >2/3 of the unit area of plants are not aquatic bed >5/4 of the unit area within 150 ft of wetland unit on the upland side in land uses that general additional if score is:  **A of the area within 150 ft of wetland unit on the upland side in land uses that general additional if score is:  **A of the area within algal blooms or excessive plant growth such as militality improvement provided by the site valuable to society?  **A of the area booken where water quality is an issue (at least one aquatic resource initial as sub-basian where water quality is an issue (at least one aquatic resource initial as a sub-basian where water quality is an issue (at least one aquatic for maintaining water as a sub-basian where water quality is an issue (at least one aquatic for maintaining water as a sub-basian where water quality is an issue (at least one aquatic resource initial and a sub-basian where water quality is an issue (at least one aquatic resource initial and allowed and a sub-basian where water quality is an issue (at least one aquatic resource initial and a sub-basian where water quality is an issue (at least one aquatic or a sub-basian where water quality is an issue (at leas	actoristics of the plants in the wetland: Choose the appropriate description that results in th	o highest
To come cover in the unit, par it can be in get a factor of herbaceous plants is 2/3, of the vegetated area of herbaceous plants is 2/3, of the vegetated area of herbaceous plants is 2/3, of the vegetated area plants and open water coyer 2/3, despated area plants and open water coyer 2/3, despated area is bed plants and open water coyer 2/3, dethe unit.  Add the points is a plant of the vegetated area is bed plants and open water coyer 2/3, dethe unit.  Add the points is potential to support the water quality function of the lake used by power boars?  Of the area within 150 ft of wetland unit on the upland side in land uses that general absorbacents if score is: 2 or 3 = H	zz, and do not include any open water in your estimate of coverage. These encourages plants dominant form or as an understory in a shrub of forest community. These are not Coveration	can be either classes, Area
of herbaceous plants is $3^{1}/3$ of the vegetated area plants and open water coyer $3^{1}/3$ , for the vegetated area plants and open water coyer $3^{1}/3$ , we getated area plants that are not aquatic bad $3^{1}/3$ , we getated area is been plants and open water coyer $3^{1}/3$ , we getated area and open water coyer $3^{1}/3$ , we getated area are plants and open water coyer $3^{1}/3$ , we have the points it is been as a subject of the points in the lake have problems with algal blooms or excessive plant growth such as milfoli?  The lake have problems with algal blooms or excessive plant growth such as milfoli?  Add the points in decape Price and it is core is: 2 or 3 = H 1 = M 0 = L  Add the points in such basin where water quality is an issue (at least one aquatic resource in the lake in a sub-basin where water quality is an issue (at least one aquatic resource in the late of the lake in the late of the points in the late of the late of a the late of a late in the faint of a sub-basin where watershed or local plan as important for maintaining water as a sub-basin where have in a watershed or local plan as important for maintaining water as a sub-basin where water had a water had or had a manual and a sub-basin where water had a water had or water.	Wel is total cover in the bill, but it built be in fatches. Behadecods bots not include aquatic by The harbaceous plants is \$90% of the vecestited area	
of herbaceous plants is $3^{1}_{3}$ of the longstated area plants that are not aquate bed $3^{2}_{3}$ facility plants that are not aquate bed $10^{2}_{3}^{2}_{3}$ by Egetated area like bed plants and open water coyer $3^{2}_{3}$ de the unit.  Add the points is a Potential if score is:  8 2 2 = H	er of herbaceous plants is >/, of the vegestated area	points = 4
plants that are not aquatic bad > 2/1/4 anit plants that are not aquatic bad > 2/1/4 agetated area ic bed plants and open water coyer > 2/1/4 getated area ic bed plants and open water coyer > 2/1/4 getated area  the landscape have the potential to support the water quality function of the take used by power bosts?  % of the area with 150 ft of wetland unit on the upland side in land uses that gener be lake have problems with algal blooms or excessive plant growth such as militall?  Add the points Indecape Pokential: if score is: 2 or 3 = H	sr of herbaceous plants is >1/3 of the Vegetated area	points = 3
lic bed plants and open water coyer > 21, of the unit  Add the points is to Potential if score is: 8.12 = H	or plants that are not aquatic bed > 1/ anit	points = 3
Lie bed plants and open water coyer > 2/, ôt the unit  Add the points in Potential if score is:  Reportual if score is:  Repor	ar plants that are not aquatic bed $\ln^2 \lambda_3$ vegotated area	points ≈ 1
Rating of Site Potential if score is: 8/2 = H	atic bed plants and open water coyer > 2/1 of the unit	points = 0
the landscape have the potential to support the water quality function of the landscape have the potential to support the water quality function of the lake used by power beaus?  % of the area with 150 ft of wetland unit on the upland side in land uses that generate lake have problems with algal blooms or excessive plant growth such as milfoli?  Add the points Indecape Petential: if score is: 2 or 3 = H 1 = M 0 = L  Add the points Indecape Petential: if score is: 2 or 3 = H 1 = M 0 = L  Natgr quality improvement provided by the site valuable to society?\  Iskefon the 303(d) list of degraded aquatic resources?\  Iskefon the 303(d) list of a degraded aquatic resources in the late of the points in the site waluable to society?\    1	/	boxes above
the landscape have the potential to support the water quality function of the lake used by power beast?  % of the area within 150 ft of wetland unit on the upland side in land uses that generate lake have problems with algal blooms or excessive plant growth such as milfeli?  Add the points Indecape Perential: If score is:	8-72 a H 4-7 a M 0-3 a L	d the rating on the first page
lake used by power boats?  % of the area with) 150 ft of wetland unit on the upland side in land uses that generally of the area with) algal blooms or excessive plant growth such as milfelighted have problems with algal blooms or excessive plant growth such as milfelighted have problems with algal blooms or excessive plant growth such as milfelighted properties.  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:2 or 3 = H1 = M0 = L  Add the points indecape potential: if score is:	s the landscape have the potential to support the water quality function of the site?	
% of the area within 150 ft of weetland unit on the upland side in land uses that generate late have pyoblems with algal blooms or excessive plant growth such as milfoll?  Add the points indecape Potential: if score is:		s≈1 No≖O
the lake have pyoblems with algal blooms or excessive plant growth such as milifoli?  Add the points indecape Pytential: if scare is; 2 or 3 = H 1 = M 0 = L  Water quality improvement provided by the site valuable to society?  Iskopon the 303(a) list of degraded aquade resources?  Iskopon the 303(a) list of degraded aquade resources?  Iskopon the account of degraded and the second of least one aquade resource in the second dentified in a watershed or local plan as important for maintaining water as a 700(1), for the lake ar beau in which the unit is faund.	.0% of the area withly 150 ft of wetland unit on the upland sige in land uses that generate po	ollutants?
the lake have pyoblems with algal blooms or excessive plant growth such as milifoli?  Add the points I  Add the points II  Add the points I  Add the points I  Add the points II  Add the points I  Add the points	, ye	s=1 No=0
Add the points indicate it. 2 or 3 = H		Seal Now O
S of Landscape Pokentials: If score les: 2 or 3 = H	_	boxes above
Is the water quality improvement provided by the site valuable to society?\ Is the lakefor the 303(d) list of degraded aquate resources?  10 303(d/list)?  Has five in a sub-basin where water quality is an issue (at least one aquate resource likthe basin is on the 303(d/list)?  Has five site been identified in a watershed or local plan as important for maintaining water duality? Answer YES for the have a basin to which the unit is found.		rd the rating on the first page
is the 303(d) list of degraded aquatic resources?  a sub-basin where water quality is an issue (at least one aquatic resource inkithe basen indentified in a watershed or local plan as important for maintaining water dut	e water quality improvement provided by the site valuable to society?\	
Is the la/ke in a sub-basin where water quality is an issue (at least one aquatic resource livithe basin is on thie 303(d/list)?  Has the set be been identified in a watershed or local plan as important for maintaining water dusling HAS The Property Is the known is a TARIN for the under a that in which the unit is found.		Sel Now 0
Has the site been identified in a watershed or local plan as important for maintaining water quality? Answer YES if those is a TMAIL for the late or basin is which the unit is found.	s laye in a sub-basin where water quality is an issue (at least one aquatic resource in the basi dylist)?	In is on the
	Has the site been identified in a watershed or local plan as important for maintaining water duali If there is a TMDL for the lake or basin in which the unit is found.	ility? Answer YES Kes=2 No=0
Total for L.3		boxes above

Wetland name or number

LAKE FRINGE WETLANDS	
Hydrologic Functions - Indicators that the wetland unit functions to reduce shoreline erosion	educe shoreline erosion
L 4.0. Does the site have the potential to reduce shoreline erosion?	
L 4.1. Distance siong shore and average width of Cowardin desses along the lakeshore (do not include Aquatic bed): Choose the highest scoring description that matches conditions in the wetland.	Include Aquatic bed):
> % of distance is Scrub-shrub or Forested at least 33 ft (10 m) wide	points ≈ 6
> % of distance is Scrub-shrub or Forested at least 6 ft (2 m) wide	points = 4
> % distance is Scrub-shrub or Forested at least 33 ff (10 m) wide	points = 4
Plants are at least 6 ft (2 m) wide (any type except Aquatic bed)	points = 2
Plants are less than 6 ft (2 m) wide (any type except Aquatic bed)	points ≠ 0
Rating of Site Potential: If score is: 6 = M 0-5 = 1	Record the rating on the first page
L.S.O. Does the landscape have the potential to support the hydrologic functions of the site?	e site?
L5.1. Is the lake used by power boats with more than 10 hp3/	Yesal Nomo
L.S.2. Is the fotch on the lake side of the unit at least'in myle in distance?	Yes = 1 No = 0
Total for L.5 Add the po	Add the points in the boxes above
Rating of Landscape Potential If score is: 2 vH 1 vM 0 = L	Record the rating on the first page
L 6.0. Are the hydrologic functions provided by the site valuable to society?	
L 6.1. Are there resources along the shore that can be impacted by erosion? If more than one resource is present, choose the one with the highest score.  There are human structurys or old growth/mature forests within 25 ft of OHWM of the shore in the unit	rasource is present, shore in the unit
	points # 2
There are nature trajis or other paths and recreational activities within 25 ft of OHWM	points = 1
Other resources that could be impacted by erosion There are no resources that can be impacted by erosion along the shorks of the unit	points # 1
Rating of Value: If zcore is: 2 = H 1 = M 0 = L	Record the rating on the first page
NOTES and FIELD OBSERVATIONS:	
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	and the second

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 $\Diamond$ Wetland name or number\_

<u>SLOPE WETLANDS</u>	
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?	
3.1.1. Characteristics of the average clope of the wetland: (a 1% slope has a 1 ft vertical drop in elevation for every	
Slope is 1% or loss	
	(
Stope is > 2%-5%	C
Slope is greater than 5%	_
5.1.2. The soil 2 in bolow the surface (or duff layer) is true clay or true organic (use NRCS definitions): Yes = 3 No #0	0
5 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	
nave trouble seeing the soil surface (>/5% 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 > 1/2 of area	
Dense, woody, plants > 1/2 of area Show 1/5 / Act 3	4
Dense, uncut, herbaceous plants > % of area	
Does not meet any of the criteria above for plants	
Total for \$1.	7
The state of the s	

Record the rating on the first page S 2.1. is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? S 2.0. Does the landscape have the potential to support the water quality function of the site? Rating of Site Potential If score is: 12 \*\* H \_\_\_6-11 \*\* M \_\_\_\_0-5 \*\* L

Record the rating on the first page 0 O OYes=1 No #0 Add the points in the baxes above S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1? Other sources Total for S 2

Rating of Landscape Potential If score is: 1-2 = M - 0 = L

OS 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stroam, river, lake, or marine water that is on the 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 bosin is on the 303(d) list. S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? Answer VES if there is a TMDL for the basin in which unit is found, Add the points in the boxes above S 3.0. Is the water quality improvement provided by the site valuable to society? Total for S 3

Rating of Value If score is: - 2-4 m H 1 m 0 m L

Record the rating on the first page

3,2- Squaticem Creek listed to Bactarat 20. 3.3. - Squaticum creek TMDL

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e first page	Rating of Landscape Potential if score is: L=M > O=L
C	Sunface runoff?
(	S 5.1. is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess
	S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?
e first page	Rating of Site Potontial   f score  s:1 = M0 = L
	All other conditions points ≈ 0
.e	Dense, uncut, rigid plants cover > 90% of the area of the wetland
	in), or dense enough, to remain erect during surface flows.
	5 4.1. Characteristics of plants that feduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conclitions in the wetland. Stems of plants should be thick enough (usually > <sup>7</sup> / <sub>8</sub>
	S 4.0. Does the site have the potential to reduce flooding and stream erosion?
5	Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion
	SCOPE WEI LANDS

Record the rating on the first page 0 points = 2 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 = A Add the points in the boxes above The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or 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: natural resources (e.g., houses or salmon redds)
Surface flooding problems are in a sub-basin farther down-gradient
No flooding problems anywhere downstream Rating of Value If score is: 2-4 = H V 1 = M O = L Total for S 6

NOTES and FIELD OBSERVATIONS:

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		0	Q	grand de la constant	0
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 strate 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 N ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.  Aquatic bod  Emergent  Emergent  Scrub-shrub (areas where shrubs have > 30% cover)  Scrub-shrub (areas where trees have > 30% cover)  I structure; points = 1  I structure; points = 0  I the unit has a forested class, check if  The Forested class has 3 out of 5 strate (anopy, sub-canopy, shrubs, herbaceous, moss/ground-cover)  that each cover 20% within the Forested polygon	regimes (hydroperiods) present within the wetland. The water regime has to cover tabland or & act o count (see text for descriptions of hydroperiods).  4 or more types present: points = 3 at house present: points = 2 at hundated  2 types present: points = 1 at you be present: points = 2 at you be present:	Richness of plant species.  Count the number of plant species in the weetland that cover at least 10 ft?,  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 indude Burosian milgall, reed canarygrass, purple loosestrife, Canadian thistic flow counted: >19 species  5-19 species  < 5 species  O 5 poocles	Interspersion of habitats  Decide from the diagrams bolow whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unwegetated areas (can include open water or mudfiats) is high, moderate, low, or mone. If you have four or more plant classes or three classes and open water, the rotting is always high.  The spoints  Low = 1 point  Moderate = 2 points  Tow  SH = 3points
HABITAT FUNC	H 1.0. Does the s	H 1.1. Structure of plan Cowardin plant of K ac or more to  J K ac or more to  J K ac or more to  Emergent  Emergent  Forested (ar if the unit h  If the unit h  If the unit h  If the unit h	H 1.2. Hydroperiods  Check the types of	H.1.3. Richness of plant species. Count the number of pla Different parches of the s. the species. Do not nel if you counted: >19 pnc < 5.19 sp	H 1.4. Interspersion of habitate Decide from the diagram the classes and unvegets hove four or more plant a hove four or more plant a hove diagrams.  None a Opoints  All three diagrams in this row are HIGH = 3points

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Wetland name or number

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100 m (see next page) dangered species (any plant or animal on the st usl WDFW priority species us as determined by the Department of Natural i habitat site in a local or regional comprehensive at page) within 100 m	100 m (see next page) dangered species (any plant or animal on the st usl WDFW priority species us as determined by the Department of Natural Habitat sife in a local or regional comprehensive of plan xt page) within 100 m		
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ue as determined by the Department of Natural habitat site in a local or regional comprehensive d plan kt page) within 100 m	ue as determined by the Dapartment of Natural i habite site in a local or regional comprehensive d plan tr page) within 100 m  0 = 1	— It is mapped as a location for an individual WDFW priority species	
t page) within 100 m	of plan  At page) within 100 m  0 = 1	—— It is a Wethand of High Conservation Value as determined by the Department of Natural Resources —— If has bron extensived as an important habitate dealing a local procedure.	
xt page) within 100 m 0 = 1	kt page) within 100 m 0 = 1 Indan	Shoreline Master Plan, or in a watershed plan	
	0=1 		

H.2.0 used colls from waters wetland more urbanized all one km.

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## **WDFW Priority Habitats**

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildilfe, 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gcv/publications/00168/wdfw.00168.pdf or access the list from here:

http://wdfw.wa.gov/consecration/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 hablat 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 solls over bedrock
- Old-growth/Mature forests: Old-growth west of Casande 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 aquade 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 (fuil 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.

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- Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Caast 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 solis, 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 basait, andesite, and/or sedimentary rock, including riprap slides and mine tallings. May be associated with diffs. [
- 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

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

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Wetland name or number

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Check off any criterio that apply to the wetland. Circle the category when the appropriate criteria are met.	)
SC 1.0. Extraring weetlands  Does the weetland meet the following criteria for Estuarine wetlands?  — The dominant water regime is tidal,  — Vegetated, vegety et an estuarine weeland  — With a salining greater than 0.5 ppt  Yes—Go to SC 1.1. /NogNot an estuarine weeland	:
SC.1.1. Is the wetland within a National Wildlife Refugo, National Park, National Estuary Roserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No - Go to SC1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 or in size and meets at least two of the following three conditions?  — The wetland is relatively undisturbed (has no diking, ditching, filling, cuitivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Sporting, see page 25)  — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	Cat.
mowed grassland.  The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.	Cat. II
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Haz the WA Department of Natural Resources updated their website to include the list of Wedlands of High Conservation Value? SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?  Yes = Catagory I (No y Not a WHCV)	S t
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?  http://www1.dnr.wa.gov/nhp/rofdessk/datta.earch/wnhpwetlands.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	
and (or any part of the unit) meet both the criteria for a thin the wedout will still need to rate the wetland bosso thin the wedout will still need to rate the wetland bosso thin the wedout will have organic soil horizons, either \$4.32 in of the soil profile?  4.32 in of the soil profile?  4.4 Athin the wetland unit have organic soils, either peats or or an impermeable hardpan such as clay or volcanic ast, with peats or mucks have more than 70% cover of mozas species listed in Table 4?  4.5 The western that seeps into a hole dug at least 16 in the order that seeps into a hole dug at least 16 in Table 4 are present, the wetland is a bog, peats or mucks forested (> 30% cover) with Sitka sprue bock, lodgopole pline, quaking aspen, Engelmann spruce, which into of species) listed in Table 4 provide more than a prince than a peat or mucks forested in Table 4 provide more than a prince than the western of a peat or mucks forested in Table 4 provide more than a prince than the service of	Car. 1

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The same of the sa	
Does the wetlands  Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA  Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate  the wetland based on its functions.  — Old-growth forests (wast of Causade creat): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings, with at least 8 trees/sc (20 trees/ha) that are ot least 200 years of age OR have a diameter at broast height (dah) of 32 in (81 cm) or more.  — Mature forests (west of the Cascade Creat): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average clameter (lahl) exceeding 21 in (33 cm).  Ves = Category I (Ab) expression a forested wetland for this section	- 480 
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 manine waters that its wholly or partially separated from marine waters by sandbanks, aread lands, shingle or, lars frommerly more.	
—The lagoon in which the wetland is located contains pended 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 3. / No = Not a wetland in a coastal largon	St
SC 5.1. Does the wetland meet all of the following three conditions?  — The wetland is relatively undisturbed (has no diking, ditching, filling, cuitivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).  — At least 8, of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmounced marching.	= f
— The wetland is larger than $^2/_{10}$ ac (4350 ft²) Yes = Category 1 No = Category 11	
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (size 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 Boesh Peninsula: Lands west of \$1.03 — Long Boesh Peninsula: Lands west of \$8.103	
Grayland-Westport: Lands west of SR 105  Cean Shores-Copalis: Lands west of SR 115 and SR 109  Yes – Go to SC 6.1  Yes – Go to SC 6.1	ŧ
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 H,H,M = spects of function)?  Yes = Category I No = 60 to SC 6.2	Cat. 11
Substance in ger?  Substance I acontarger, or is it in a mosale of wetlands that is 1 acontarger?  Substance I acontarger, or is it in a mosale of wetlands that is between 0.1 and 1 acontarger.  Yes = Category III No = Category IV	Cat. II
Category of wetland based on Spedal Characteristics If you snowened No for all transcented Abrahambles on Summan Earth	₹ Z

Wetland name or number

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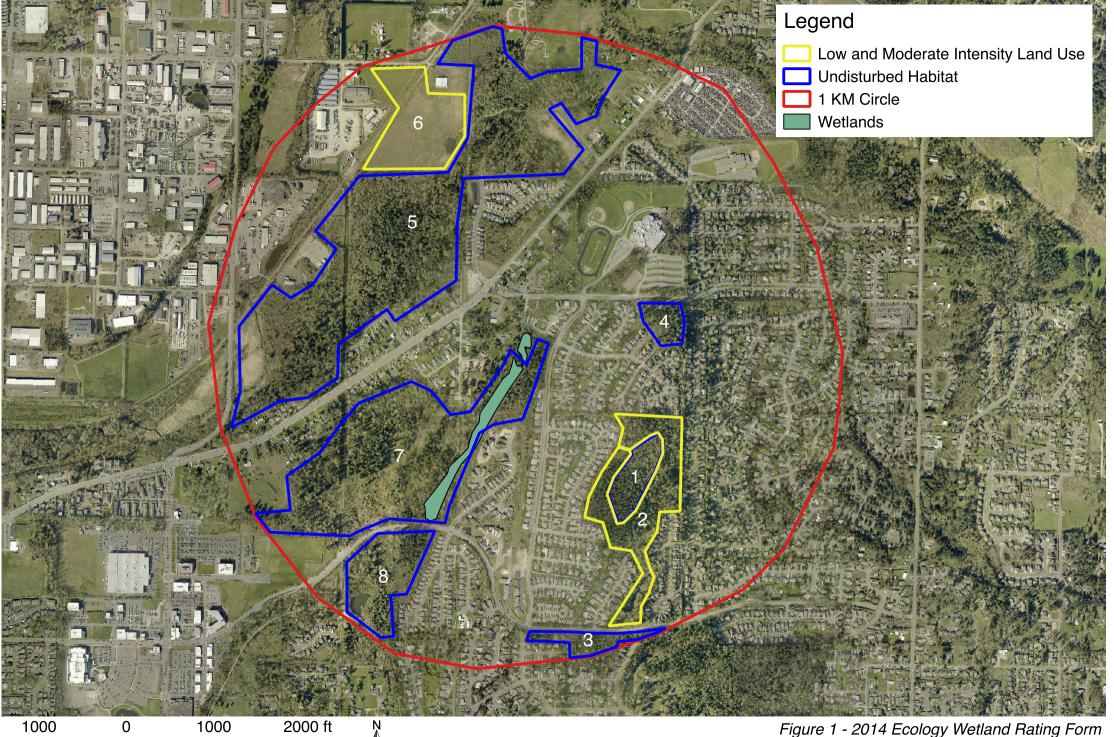


Figure 1 - 2014 Ecology Wetland Rating Form

Barkley Meadows

Miller Environmental Services. Areas shown approximate

#### 2014 Ecology Rating Form Habitat Sections 2.0

#### Wetlands A, B, & D Barkley Meadows Property

Accessible Habitat, Question H2.1									
	Undisturbed H	abitat			Moderate/Low	Intensity Ha	bitat		
			Percentage of 1				Percentage of 1 km		
Polygon #	Square Feet	Acres	km Polygon	Polygon #	Square Feet	Acres	Polygon Divided by 2		
Area 7		70	7.37%				0.00%		
			0.00%				0.00%		
			0.00%				0.00%		
		0	0.00%			0	0.00%		
	_	Total=	7.37%	_	<del>-</del>	Total=	0.00%		

**Total Accessible Undisturbed +** 

Moderate/Low Intensity Habitat (H2.1) =

**7**%

	Non-Accessible Habitat, Question H2.2									
Undisturbed Habitat				Moderate/Low Intensity Habitat						
			Percentage of 1				Percentage of 1 km			
Polygon #	Square Feet	Acres	km Polygon	Polygon #	Square Feet	Acres	Polygon Divided by 2			
Area 1		7	0.74%	Area 2		26	1.37%			
Area 3		5	0.53%	Area 6		21	1.11%			
Area 4		4	0.42%				0.00%			
Area 5		129	13.58%			0	0.00%			
Area 8		17	1.79%			0	0.00%			
			0.00%			0	0.00%			
			0.00%			0	0.00%			
		0	0.00%			0	0.00%			
		0	0.00%			0	0.00%			
		0	0.00%			0	0.00%			
Total= 17.05%						Total=	2.47%			

Total Undisturbed Habitat 24%
Total moderate/low int. Hab 2%
Total undisturbed + moderate 27%

Area of polygon that is high intensity: 70.6

Area of Wetland acres: 1

Area in acres of 1 km around wetland: 950

(excluding wetland)

<sup>\*</sup> All areas are approximate, based on 2008 aerial imagery or more current where available, as calculated QGIS Software



Figure 2. 2014 Ecology Rating Form Figure for Barkley Meadows - Cowardin Classes and 150-foot Boundary



Figure 3. 2014 Ecology Rating Form Figure for Barkley Meadows – Hydroperiods, Outlets, and Contributing Basins

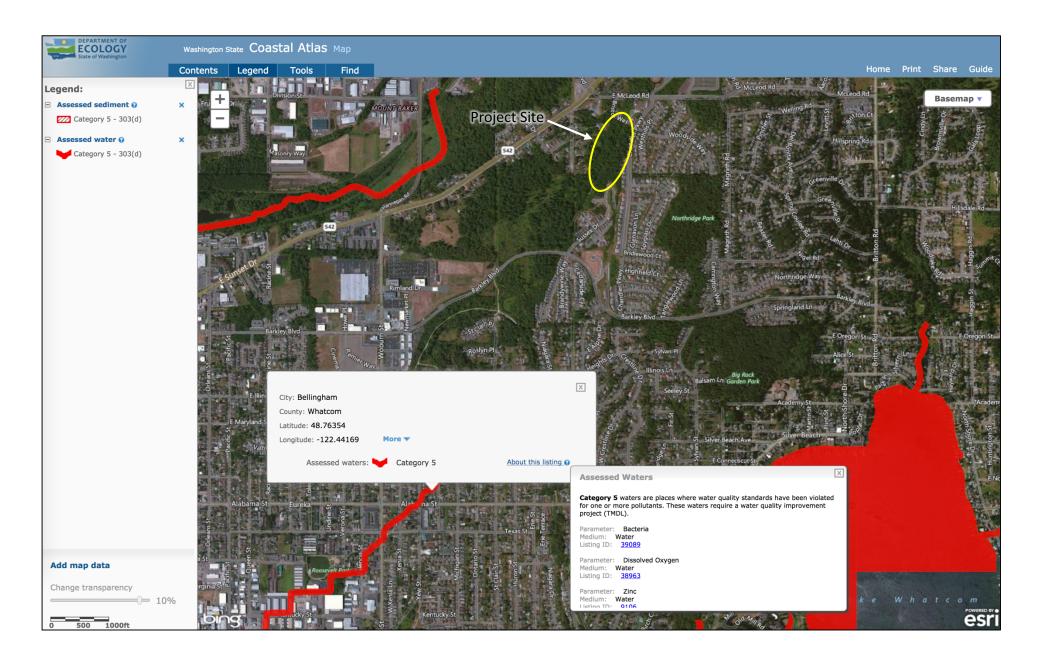


Figure 4. 2014 Ecology Rating Form Figure for Barkley Meadows – Screenshot of 303(d) Listings in the Whatcom Creek Basin https://fortress.wa.gov/ecy/coastalatlas/tools/Map.aspx

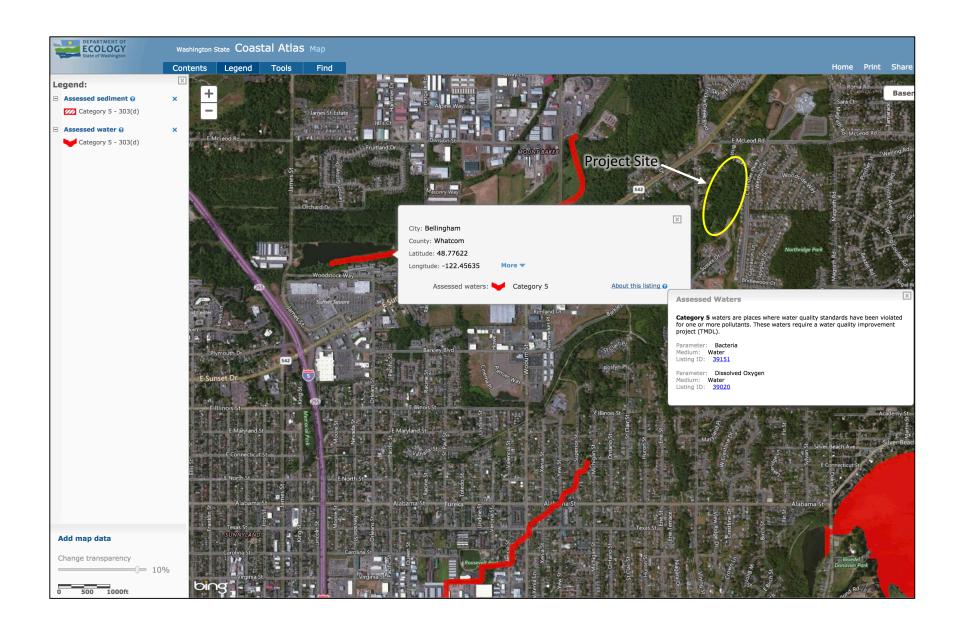


Figure 4a. 2014 Ecology Rating Form Figures for Barkley Meadows – 303(d) Listing in Squalicum Creek Basin https://fortress.wa.gov/ecy/coastalatlas/tools/Map.aspx

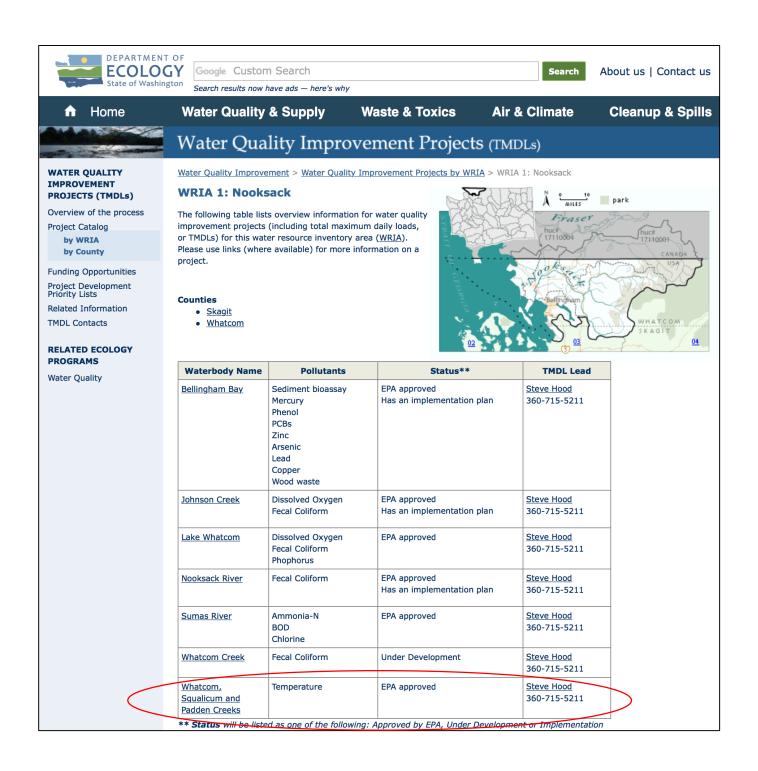


Figure 5. 2014 Ecology Rating Figure for Barkley Meadows - TMDL Screenshot