



# CRITICAL AREAS REPORT

November 14, 2025



## Lacamas Northshore *Camas, Washington*

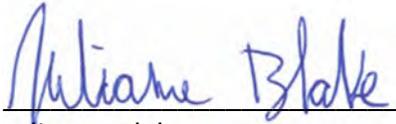
Prepared for  
**SunCal Acquisitions, LLC**  
606 Venice Blvd, Suite 1200  
Los Angeles, CA 90291  
(503) 858-5452

*Prepared by*  
**Ecological Land Services, Inc.**  
1157 3rd Avenue, Suite 220A • Longview, WA 98632  
(360) 578-1371 • Project Number 4426.01

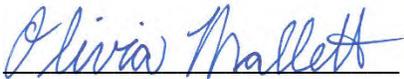
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The information and data in this report were compiled and prepared under the supervision and direction of the undersigned.



Julianne Blake  
Biologist IV



Olivia Mallett  
Biologist III

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## INTRODUCTION

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Ecological Land Services, Inc. (ELS) was contracted by SunCal Acquisitions, LLC to complete a critical areas report for Clark County Tax Parcel Numbers 175747000, 175733000, and 175726000, 175727000 located at 104 NE 252<sup>nd</sup> Avenue in Camas, Washington. The site is approximately 228 acres and is located within Section 27, Township 2 North, Range 3 East of the Willamette Meridian (Figure 1). ELS biologists conducted site visits on June 10, 11, 12, and 18, 2025 to determine the presence and extent of wetlands and fish and wildlife habitat conservation areas onsite. This critical areas report summarizes ELS findings in accordance with *City of Camas Municipal Code (CMC) Chapter 16.53 Wetlands* and *Chapter 16.61 Fish and Wildlife Habitat Conservation Areas* (March 2025).

## SITE DESCRIPTION

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The site is accessed by a driveway that enters the site from SE 252<sup>nd</sup> Avenue near the southeast portion of parcel 175727000. The site is zoned as North Shore Lower Density Residential (LD-NS), North Shore Higher Density Residential (HD-NS), North Shore Mixed Use (MX-NS), North Shore Commercial (C-NS), North Shore Mixed Employment (ME-NS), North Shore Park/Open Space (POS-NS). The properties surrounding the site consist primarily of single-family homes, farmland, and undeveloped forested land, with Lacamas Lake Elementary to the northwest of the site. The majority of the site is comprised of regularly grazed open pasture land, with forested areas in the southern portion of the site and the northeastern corners of parcels 175747000 and 175726000, and manure treatment ponds with associated structures for storage of farm equipment in the southeast near the site access. The open pasture area has rolling hills with the topographical low points associated with Wetland A, Wetland E, Wetland V, Wetland W, Wetland X, and the manure treatment ponds. A linear depression associated with Stream A flows through the site from the northeast to the northwest and a linear depression associated with Stream B is located along the southeastern corner of the site. A topographical low point associated with Wetland U is located in the northwest corner of the site along Stream A. The forested area in the northeast corner of parcel 175726000 generally slopes upward to the northeast and downward toward Stream A, with depressions associated with Wetland Y and Wetland Z. The forested area in the northeast corner of parcel 175747000 generally slopes upward to the northeast. The southernmost forested area consists of undulating topography associated with rock outcroppings and the herbaceous bald (HB) and depressions associated with Wetland B, Wetland C, and Wetland D. General vegetation in unforested areas consists of regularly mowed and grazed pasture grasses and weedy herbs and forbs. Forested areas consist of a mixed canopy formed by deciduous and coniferous trees, with woody shrubs forming a multi-layered sub-canopy with grasses, herbs, and forbs providing ground cover.

## METHODOLOGY

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The property was evaluated for the presence of wetlands using the Routine Determination Method according to the U.S. Army Corps of Engineers' 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory 1987); *Western Mountains, Valleys, and Coast Region* (Version 2.0) (Corps 2010). The

Routine Determination Method and defining wetland criteria are discussed further in Appendix A. Wetlands are regulated as “Waters of the United States” by the U.S. Army Corps of Engineers (Corps) and as “Waters of the State” by the Washington Department of Ecology (Ecology), and locally by the City of Camas. The ordinary high water mark (OHWM) delineation was conducted following *RCW 90.58.030* and *Determining the Ordinary High Water Mark for Shoreline Management Act Compliance in Washington State* (Ecology 2016).

ELS biologists evaluated the property on June 10, 11, 12, and 18, 2025 for the presence of critical areas including streams, wetlands, and other fish and wildlife habitat conservation areas within or near the site. Eleven wetlands (Wetlands A – E and Wetlands U – Z) were delineated onsite. Onsite boundaries were determined through changes in topography, vegetation, and evidence of wetland hydrology. Vegetation, soil, and hydrology data were collected from test plots to determine the location and extent of wetlands onsite. Herbaceous bald boundaries were delineated based on vegetation and the presence of bedrock under shallow soils.

Two streams (Stream A and Stream B) were delineated onsite. The OHWM of Stream A in the forested area was demarcated with orange flagging based on obvious changes in topography, vegetation type and growth patterns, wrack deposits, and indicators of regular flow. Both sides of the stream onsite were delineated, and the stream centerline was mapped. The OHWM of Stream A throughout the remainder of the site was not mapped in the field, as the stream channel is clearly visible on aerial imagery and was blocked by barbed wire fencing. Stream B is excavated and resembles a manmade ditch but was delineated as a stream due to its size and apparent connection to an offsite stream to the south. Stream B was mapped based on obvious changes in topography, vegetation growth patterns, and indicators of regular flow. The locations of test plots, wetland flags, herbaceous bald boundaries, Oregon white oak (*Quercus garryana*, FACU) trees, and OHWM flagging were recorded using a hand-held GPS unit capable of sub-meter accuracy under ideal conditions (Figure 2).

## VEGETATION

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Vegetation in unforested areas consists of regularly mowed and grazed pasture grasses and weedy herbs and forbs. Forested areas consist of a mixed canopy formed by deciduous and coniferous trees, with woody shrubs forming a multi-layered sub-canopy, and grasses, herbs, and forbs providing ground cover. The forested area in the southernmost portion of the property also contains Oregon white oak (oak) trees and shrubs and herbs commonly associated with herbaceous balds. Himalayan blackberry (*Rubus armeniacus*, FAC) was very dense in some portions of the site. The plant indicator status following the plant scientific name is defined by the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012) and can be found in Appendix A.

## FORESTED AREAS

Dominant vegetation in forested areas consists primarily of **trees**: bigleaf maple (*Acer macrophyllum*, FACU), Douglas fir (*Pseudotsuga menziesii*, FACU), Oregon ash (*Fraxinus latifolia*, FACW), Oregon white oak, red alder (*Alnus rubra*, FAC), western redcedar (*Thuja plicata*, FAC); **shrubs**: oceanspray (*Holodiscus discolor*, FACU), vine maple (*Acer circinatum*, FAC), Himalayan

blackberry, holly (*Ilex aquifolium*, FACU), beaked hazelnut (*Corylus cornuta*, FACU), snowberry (*Symphoricarpos albus*, FACU), tall Oregon grape (*Mahonia aquifolium*, FACU), salmonberry (*Rubus spectabilis*, FAC); and **herbs**: bentgrass (*Agrostis* sp., Assumed FAC), shiny geranium (*Geranium lucidum*, FACU), western ladyfern (*Athyrium cyclosorum*, FAC), nightshade (*Circaea canadensis*, FACU), red fescue (*Festuca rubra*, FAC), velvetgrass (*Holcus lanatus*, FAC), creeping buttercup (*Ranunculus repens*, FAC), cleavers (*Galium aparine*, FACU), annual ryegrass (*Lolium perenne*, FAC), trailing blackberry (*Rubus ursinus*, FACU), bluegrass (*Poa* sp., Assumed FAC), herb Robert (*Geranium robertianum*, FACU), false lily of the valley (*Maianthemum dilatatum*, FAC), spring beauty (*Claytonia virginica*, FACU), sweet vernal (*Anthoxanthum odoratum*, FACU), orchard grass (*Dactylis glomerata*, FACU), soft rush (*Juncus effusus*, FACW), reed canarygrass (*Phalaris arundinacea*, FACW), and tall fescue (*Schedonorus arundinaceus*, FAC).

### OPEN PASTURE

Dominant vegetation in open pasture areas consists primarily of **herbs**: bentgrass, red fescue, velvetgrass, annual ryegrass, common plantain (*Plantago major*, FAC), cleavers, bluegrass, sweet vernal, orchard grass, creeping buttercup, tall fescue, and Canada thistle (*Cirsium arvense*, FAC).

### WETLANDS

Dominant wetland vegetation consists primarily of **trees**: Oregon ash, red alder; **shrubs**: Himalayan blackberry, salmonberry; and **herbs**: western ladyfern, water parsley (*Oenanthe sarmentosa*, OBL), creeping buttercup, western skunk cabbage (*Lysichiton americanus*, OBL), bentgrass, velvetgrass, reed canarygrass, soft rush, sawbeak sedge (*Carex stipata*, OBL), marsh seedbox (*Ludwigia palustris*, OBL), pond water-starwort (*Callitriche stagnalis*, OBL), water smartweed (*Polygonum punctatum*, OBL), water foxtail (*Alopecurus aequalis*, OBL), orchard grass, annual ryegrass, tall fescue, Kentucky bluegrass (*Poa pratensis*, FAC), curly dock (*Rumex crispus*, FAC), tall mannagrass (*Glyceria elata*, FACW), and piggyback (*Tolmiea menziesii*, FAC).

### UPLANDS

Dominant upland vegetation consists primarily of **trees**: bigleaf maple, Oregon white oak, Douglas fir, Oregon ash, red alder, western redcedar; **shrubs**: vine maple, Himalayan blackberry, holly, beaked hazelnut, snowberry, tall Oregon grape; and **herbs**: bentgrass, shiny geranium, western ladyfern, nightshade, red fescue, velvetgrass, creeping buttercup, annual ryegrass, common plantain, bluegrass, herb Robert, false lily of the valley, spring beauty, sweet vernal, orchard grass, red fescue, soft rush, reed canarygrass, tall fescue, cutleaf geranium (*Geranium dissectum*, UPL), trailing blackberry, Canada thistle, tansy ragwort (*Jacobaea vulgaris*, FAC), piggyback, and cleavers.

### HERBACEOUS BALD

Dominant vegetation found on the herbaceous bald consisted primarily of **trees**: Oregon white oak, Douglas fir, Oregon ash, western redcedar; **shrubs**: Nootka rose (*Rosa nutkana*, FAC), snowberry, seaberry (*Hippophae rhamnoides*, UPL), tall Oregon grape, holly, serviceberry (*Amelanchier alnifolia*, UPL), oceanspray, poison oak (*Toxicodendron diversilobum*, FAC), beaked hazelnut; and **herbs**: nipplewort (*Lapsana communis*, FACU), herb Robert, wild strawberry (*Fragaria vesca*, FACU), spring beauty, self-heal (*Prunella vulgaris*, FACU), Camas lily (*Camassia*

quamash, FACW), sweet vernal, trillium (*Trillium grandiflorum*, UPL), largeleaf avens (*Geum macrophyllum*, FAC), western swordfern (*Polystichum munitum*, FACU), vetch (*Vicia americana*, FAC), and western columbine (*Aquilegia formosa*, UPL).

## SOILS

Soils onsite are mapped as Cove silty clay loam, 0 to 3 percent slopes (CvA), Hesson clay loam, 0 to 8 percent slopes (HcB), Hesson clay loam, 8 to 20 percent slopes (HcD), Hesson clay loam, 20 to 30 percent slopes (HcE), Hesson clay loam, 30 to 55 percent slopes (HcF), Lauren loam, 0 to 8 percent slopes (LeB), Lauren gravelly loam, 8 to 20 percent slopes (LgD), Lauren gravelly loam, 20 to 45 percent slopes (LgF), Lauren very gravelly loam, 0 to 8 percent slopes (LIB), Olympic stony clay loam, 3 to 30 percent slopes (OmE), Tisch silt loam, 0 to 3 percent slopes (ThA), Semiahmoo muck (Sr), Rock land (Rk), and Washougal gravelly loam, 0 to 8 percent slopes (WgB) as referenced on the Natural Resources Conservation Service (NRCS) Web Soil Survey website (NRCS 2025a; Figure 7)<sup>1</sup>. Table 1 summarizes soils onsite and Appendix B contains the Wetland Determination Data Forms with soil data.

**Table 1. Mapped Soils**

Soil Series	Percent Slope	Landform <sup>1</sup>	Drainage Class <sup>1</sup>	Hydric Soil <sup>2</sup>	Test Plots per Soil Series
Cove silty clay loam (CvA)	0 – 3	Floodplains	Poorly drained	Yes	10 – 13
Hesson clay loam (HcB)	0 – 8	Terraces	Well drained	No	--
Hesson clay loam (HcD)	8 – 20	Terraces	Well drained	No	--
Hesson clay loam (HcE)	20 – 30	Terraces	Well drained	No	--
Hesson clay loam (HcF)	30 – 55	Terraces, escarpments	Well drained	No	--
Lauren loam (LeB)	0 – 8	Terraces	Well drained	No	33, 34, 43, 81 – 86, 93 – 96
Lauren gravelly loam (LgD)	8 – 20	Terraces	Well drained	No	1, 8, 9, 14, 97 – 100
Lauren gravelly loam (LgF)	20 – 45	Terraces, escarpments	Well drained	No	--
Lauren very gravelly loam (LIB)	0 – 8	Terraces	Well drained	No	2 – 5, 15 – 21
Olympic stony clay loam (OmE)	3 – 30	Mountain slopes	Well drained	No	--
Tisch silt loam (ThA)	0 – 3	Depressions	Very poorly drained	Yes	35, 42, 44 – 49, 88 – 92

<sup>1</sup> Areas mapped as hydric soils do not necessarily mean that an area is or is not a wetland—hydrology, hydrophytic vegetation, and hydric soils must all be present to classify an area as a wetland.

Soil Series	Percent Slope	Landform <sup>1</sup>	Drainage Class <sup>1</sup>	Hydric Soil <sup>2</sup>	Test Plots per Soil Series
Semiahmoo muck (Sr)	0 – 1	Depressions	Very poorly drained	Yes	6, 7, 22-32, 36 – 41, 87
Rock land (Rk)	65 – 90	--	--	No	--
Washougal gravelly loam (WgB)	0 – 8	Terraces	Somewhat excessively drained	No	--

<sup>1</sup>NRCS 2025a; <sup>2</sup>NRCS 2025b.

### WETLAND SOILS

Evaluated wetland soils consisted of silt, silt loam, clay loam, silty clay loam, and gravelly sandy loam textures with black, very dark brown, very dark gray, very dark grayish brown, dark grayish brown, dark gray, and gray (10YR 2/1, 2/2, 3/1, 3/2, 3/3, 4/1, 4/2, 4/3) matrix colors. Redoximorphic features were observed as concentrations or depletions occurring as soft masses or pore linings with reddish brown, yellowish red, dark brown, strong brown, reddish yellow, dark yellowish brown, and brownish yellow (5YR 4/4, 4/6; 7.5YR 3/4, 4/6, 7/6; 10YR 3/6, 4/6, 5/4, 5/8, 6/8). Primary hydric soil indicators Redox Dark Surface (F6), Hydrogen Sulfide (A4), Depleted Below Dark Surface (A11), Redox Depressions (F8) were observed in wetland plots (Appendix B).

### UPLAND SOILS

Evaluated upland soils consist of silt, silt loam, loam, clay loam, clay, silty clay, silty clay loam, gravelly sandy loam, gravelly silty loam, with black, dark brown, very dark brown, very dark gray, very dark grayish brown, dark gray, brown, and dark yellowish brown (7.5YR 2.5/1, 3/1, 3/2; 10YR 2/1, 2/2, 3/1, 3/2, 3/3, 4/1, 4/3, 4/4) matrix colors. Redoximorphic features were observed in upland test plots TP-4, TP-11, TP-28, TP-34, TP-36, TP-42, TP-96, and TP-97 as concentrations or depletions occurring as soft masses or pore linings with dark reddish brown, yellowish red, strong brown, dark brown, dark yellowish brown, and yellowish brown (5YR 3/4, 4/6; 7.5YR 3/4, 4/6; 10YR 3/6, 5/8). Primary hydric soil indicator Redox Dark Surface (F6) was observed in TP-4, TP-11, TP-28, TP-34, TP-36, TP-96, and TP-97, and Depleted Matrix (F3) was also observed in TP-34 (Appendix B). These plots did not meet the criteria for all three wetland indicators and are therefore considered to be located within uplands.

### HYDROLOGY

A total of eleven wetlands are located onsite. Hydrology within all the wetlands is maintained by a high groundwater table and supported by precipitation and runoff. Additionally, the hydrology within the riverine wetlands is supported by overbank flooding from the associated Stream A. Table 2 summarizes the hydrology of each wetland and Appendix B contains the Wetland Determination Data Forms with hydrological data.

**Table 2. Hydrology**

Wetland	HGM Class	Hydrology Indicators <sup>1</sup>	Hydroperiods <sup>2</sup>
Wetland A	Depressional	A2, A3, C1, C3, D2	SF, SO
Wetland B	Depressional	D2, D5	SO
Wetland C	Depressional	A2, A3, C1	PF, SF
Wetland D	Depressional	B4, B9, D2, D5	SF, SO
Wetland E	Slope	D2, D5	SO
Wetland U	Riverine	--	SO, PFS
Wetland V	Slope	C3	SO
Wetland W	Slope	C3	SO
Wetland X	Slope	C3	SO, IFS
Wetland Y	Riverine	A2, A3, C1	SO, PFS
Wetland Z	Riverine	D2, D5	SO, PFS

<sup>1</sup>High Water Table (A2), Saturation (A3), Algal Mat or Crust (B4), Water-Stained Leaves (B9), Hydrogen Sulfide Odor (C1), Oxidized Rhizospheres along Living Roots (C3), Geomorphic Position (D2), FAC Neutral Test (D5) <sup>2</sup>Seasonally flooded (SF), saturated only (SO), permanently flooded (PF), permanently flowing stream in or adjacent to the wetland (PFS), intermittently flowing stream in or adjacent to the wetland (IFS).

## STREAMS

### STREAM A

Stream A is mapped by Washington Department of Natural Resources (WDNR) as a Type-F stream (fish-bearing; WDNR 2025). Stream A originates approximately one mile offsite to the northeast and enters the site in the northeast corner near Wetland Y and Wetland Z, flows southwest for approximately 0.25 miles and then northwest for approximately 0.60 miles before leaving the site in the northwest corner. Stream A continues northwesterly offsite, then arcs to the southwest for approximately 0.60 miles before discharging to Lacamas Lake (WDNR 2025; Figure 2). Onsite hydrology is supported by precipitation, a shallow groundwater table, and runoff from upslope areas. According to the Washington State Department of Ecology’s Water Quality Atlas, the site is in the Lacamas Creek 12-digit hydrologic unit code (HUC) 170800010605 and Watershed Resource Inventory Area (WRIA) 28 Salmon – Washougal.

### STREAM B

Stream B is not mapped by WDNR; however, Stream B meets the WAC 222-16-031 definition of a Type 3 water based on having a defined channel of 2 feet or greater within the bankfull width, a gradient of 16 percent or less, and the absence of any fish passage barriers. As such, Stream B is considered a Type-F (fish-bearing) stream. Stream B is maintained as a roadside ditch and the onsite portion begins at a culvert at the corner of NE 3<sup>rd</sup> Street and NE 252<sup>nd</sup> Avenue (Figure 2). The stream leaves the site by crossing under NE 252<sup>nd</sup> Avenue via a culvert and flows offsite to the southeast. The stream converges with a WDNR mapped stream approximately 0.20 miles southeast of the site and continues generally south before discharging to Lacamas Lake (WDNR 2025; Figure 2). Onsite hydrology is supported by precipitation, a shallow groundwater table, and runoff from upslope areas.

## PRECIPITATION

Site visits were conducted on June 10, 11, 12, and 18, 2025. Precipitation data from June 11 and 12 is omitted, as data gathered for June 10 and June 18 provides an accurate representation of the timeframe in which the delineations were conducted. Data were gathered from the NOAA Regional Climate Centers *Clark County, WETS Station: Battle Ground*, which is the closest station to the project site with the most complete set of precipitation data. The two weeks prior to June 10 were wetter than the two weeks prior to June 18<sup>th</sup> and no precipitation occurred on the day of either site visit. Review of the APT data indicates rainfall in the three months prior to each site visit was drier than normal; however, year to date mean rainfall and year to date actual rainfall were within normal ranges. The Corps Antecedent Precipitation Tool (APT 2025) data is in Appendix D and summarized in Table 2.

**Table 3. Precipitation Data**

Precipitation (inches)								
Date	Two Weeks Prior	Three Months Prior				DAREM <sup>1</sup>		
6/10/2025	5/26 – 6/9	30 Days Ending	Observed	30%	70%	Value	Weight	Total
0.00	0.20	6/10/2025	1.87	1.98	4.25	1	3	3
		5/11/2025	0.55	2.23	5.09	1	2	2
		4/11/2025	5.91	3.99	5.88	3	1	3
Rainfall 3 months prior was: <b>drier than normal</b> <sup>2</sup>								<b>8</b>
Year to Date Mean Rainfall <sup>3,4</sup> : 47.68								
Year to Date Actual Rainfall <sup>4</sup> : 48.28								
Date	Two Weeks Prior	Three Months Prior				DAREM <sup>1</sup>		
6/18/2025	6/3 – 6/17	30 Days Ending	Observed	30%	70%	Value	Weight	Total
0.00	0.03	6/18/2025	0.41	1.67	3.70	1	3	3
		5/19/2025	1.98	1.93	4.42	2	2	4
		4/19/2025	3.98	3.92	5.52	2	1	2
Rainfall 3 months prior was: <b>drier than normal</b> <sup>2</sup>								<b>9</b>
Year to Date Mean Rainfall <sup>3,4</sup> : 48.30								
Year to Date Actual Rainfall <sup>4</sup> : 48.28								

<sup>1</sup>Direct Antecedent Rainfall Evaluation Methods (Sumner et al 2009). <sup>2</sup>Drier than normal (6-9), normal (10-14), wetter than normal (15-18). <sup>3</sup>Based on 2004-2024 precipitation data; <sup>4</sup>Based on a water year, which starts on October 1.

## CRITICAL AREAS INVENTORIES

### NATIONAL WETLANDS INVENTORY

The National Wetlands Inventory (NWI; USFWS 2025) mapping indicates the presence of one PEM1C (palustrine, emergent, persistent, seasonally flooded) wetland near the southern boundary, two PFOA (palustrine, forested, temporarily flooded) wetlands onsite in the central eastern portion with a third just offsite to the east, one PSS/EM1C (palustrine, scrub-shrub, emergent, persistent, seasonally flooded) wetland in the northwest corner, one PUBHx (palustrine, unconsolidated bottom, permanently flooded, excavated) wetland near the southeast boundary, and an R4SBC (riverine, intermittent, streambed, seasonally flooded) waterbody that runs the length of the site in the north (Figure 8). ELS partially agrees with the

NWI, as the PEM1C is mapped in the general vicinity of Wetland C, the PUBx matches the location of the manure treatment ponds, one PFOA is mapped in the general vicinity of Wetland E and another is mapped in the general vicinity of Wetland W, the PSS/EM1C is mapped in the vicinity of Wetland W, and the R4SBC is in the general vicinity of Stream A. However, the wetland classes are inconsistent with what was observed, wetlands were delineated in areas mapped as uplands by NWI, the offsite PFOA was not observed, and Stream B was observed onsite which is not identified by NWI mapping. Critical area inventory maps are typically used to gather information about a region and due to the large scale necessary for regional mapping, are limited in accuracy for localized analyses.

### CLARK COUNTY CRITICAL AREAS

The Clark County Critical Areas (CCCA) map indicates potential and permitted wetland presence and hydric soils onsite (Figure 9). ELS partially agrees with the mapping of permitted and potential wetlands as they generally correspond with the locations of the onsite wetlands and Stream A; however, CCCA does not identify any critical areas where Stream B was identified, and ELS disagrees with the extent of the CCCA mapped wetlands.

### PRIORITY HABITATS AND SPECIES

The Washington Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) maps indicate forested/shrub wetlands and emergent wetlands in the northwestern, central eastern, southern, and northeast portions of the site, oak woodlands near the southern boundary and offsite to the south, and cave or cave-rich areas in the township. Additionally, cutthroat occurrence and rainbow trout occurrence and migration are mapped in the northeast corner (WDFW 2025a; Figure 10). ELS partially agrees with PHS as wetlands are mapped in the general vicinity of ELS delineated wetlands, oak woodlands are mapped in the vicinity of the observed oaks, and the cutthroat and rainbow trout are mapped in the vicinity of Stream A, a Type-F stream. ELS also identified an herbaceous bald onsite which is not identified by PHS.

### WDNR FOREST PRACTICES

The Washington Department of Natural Resources (WDNR) Forest Practices Application Mapping Tool (FPAMT) indicates a Type-F stream that runs from east to west along the northern portion of the property. ELS investigations are generally consistent with the FPAMT, as the location of the mapped Type-F stream generally corresponds to Stream A; however, although the FPAMT identifies a stream offsite to the southeast, it does not identify a stream where ELS biologists observed Stream B (WDNR 2025; Figure 11).

## CRITICAL AREAS SUMMARY

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### WETLANDS

Wetlands were rated according to the *Washington State Wetland Rating System for Western Washington: 2014 Update* (Rating System; Hruby & Yahnke 2023). Wetland determination data forms are in Appendix B, wetland rating forms are in Appendix C, and wetlands are summarized in Table 4.

#### *WETLAND A*

Wetland A is a Category III, depressional, emergent (EM) wetland totaling approximately 3.95 acres in the southern portion of the site, with two hydroperiods (seasonally flooded (SF), saturated only (SO)). Wetland A's vegetation is dominated by creeping buttercup, skunk cabbage, water parsley, bentgrass, velvetgrass, reedcanarygrass, and soft rush. Hydrology is maintained by a high groundwater table and supported by precipitation and runoff and does not have an outlet. According to the Rating System, Wetland A is a Category III wetland, scoring 5 points for water quality functions, 5 points for hydrologic functions, and 6 points for habitat functions, for a total score of 16 points.

#### *WETLAND B*

Wetland B is a Category III, depressional, forested (FO), wetland totaling approximately 0.14 acres in the southern portion of the site, just west of Wetland A, with one hydroperiod (SO). Wetland B vegetation is dominated by Oregon ash, red alder, Himalayan blackberry, bentgrass, and skunk cabbage. Hydrology is maintained by a high groundwater table and supported by precipitation and runoff and does not have an outlet. According to the Rating System, Wetland B is a Category III wetland, scoring 5 points for water quality functions, 5 points for hydrologic functions, and 6 points for habitat functions, for a total score of 16 points.

#### *WETLAND C*

Wetland C is a Category II, depressional, EM, scrub-shrub (SS), wetland totaling approximately 0.12 acres onsite that continues offsite to the south, with two hydroperiods (SF, permanently flooded (PF)). Wetland C vegetation is dominated by marsh seedbox, water smartweed, and pond water-starwort. Hydrology is maintained by a high groundwater table and supported by precipitation and runoff. Hydrology in Wetland C flows generally south with its outlet offsite to the south. According to the Rating System, Wetland C is a Category II wetland, scoring 7 points for water quality functions, 6 points for hydrologic functions, and 7 points for habitat functions, for a total score of 20 points.

#### *WETLAND D*

Wetland D is a Category III, depressional, FO wetland totaling approximately 0.09 acres located near Wetlands A, B, and C with hydroperiods (SF, SO). Hydrology is supported by a high groundwater table, precipitation, and runoff and does not have an outlet. Vegetation is dominated by Oregon ash, reed canarygrass, bentgrass, and skunk cabbage. According to the Rating System, Wetland D is a Category III wetland, scoring 5 points for water quality functions, 5 points for hydrologic functions, and 6 points for habitat functions, for a total score of 16 points.

#### *WETLAND E*

Wetland E is a Category IV, slope, EM wetland totaling approximately 0.84 acres in the central, eastern portion of the site with one hydroperiod (SO). Hydrology is supported by a high groundwater table, precipitation, and runoff, and hydrology in Wetland E flows generally southeast without impounding. Wetland vegetation is dominated by water foxtail, annual ryegrass, bentgrass, orchard grass, and tall fescue. According to the Rating System, Wetland E is

a Category IV wetland, scoring 5 points for water quality functions, 4 points for hydrologic functions, and 3 points for habitat functions, for a total score of 12 points.

#### WETLAND U

Wetland U is a Category III, sloped, riverine, SS, FO wetland totaling approximately 0.16 acres onsite that continues offsite to the northwest with two hydroperiods (SO, permanently flowing stream within the wetland (PFS)). Hydrology is supported by overbank flooding from Stream A, a high groundwater table, precipitation, and runoff. Vegetation was dominated by red alder, willow (*Salix* sp., Assumed FACW), skunk cabbage, water parsley, common horsetail (*Equisetum arvense*, FAC), and reed canarygrass. According to the Rating System, Wetland U is a Category III wetland, scoring 7 points for water quality functions, 6 points for hydrologic functions, and 6 points for habitat functions, for a total score of 19 points.

#### WETLAND V

Wetland V is a Category IV slope, EM, wetland totaling approximately 0.19 acres, located north of Stream A near the center of the site with one hydroperiod (SO). Hydrology is supported by a high groundwater table, precipitation, and runoff. Vegetation is dominated by perennial ryegrass, hydrology flows generally northwest without impounding, and the wetland outlets to Stream A. According to the Rating System, Wetland V is a Category IV wetland, scoring 5 points for water quality functions, 4 points for hydrologic functions, and 6 points for habitat functions, for a total score of 14 points.

#### WETLAND W

Wetland W is a Category III slope, EM wetland totaling approximately 18.98 acres in the northwestern portion of the site with two hydroperiods (SO, PFS). Hydrology is supported by a high groundwater table, precipitation, and runoff, and flows generally northwest without impounding before discharging to Stream A. Vegetation is dominated by velvetgrass, red fescue, perennial ryegrass, soft rush, reed canarygrass, and Kentucky bluegrass. According to the Rating System, Wetland W is a Category III wetland, scoring 6 points for water quality functions, 4 points for hydrologic functions, and 6 points for habitat functions, for a total score of 16 points.

#### WETLAND X

Wetland X is a Category IV, slope, EM wetland totaling approximately 1.48 acres in the southeast corner of the site, near Stream B, with two hydroperiods (SO, intermittently flowing stream (IFS)). Hydrology is supported by a high groundwater table, precipitation, and runoff. Dominant vegetation consists of tall fescue, perennial ryegrass, Kentucky bluegrass, velvetgrass, creeping buttercup, and reed canarygrass. Hydrology flows generally southeast without impounding before discharging to Stream B. According to the Rating System, Wetland X is a Category IV wetland, scoring 6 points for water quality functions, 4 points for hydrologic functions, and 5 points for habitat functions, for a total score of 15 points.

#### WETLAND Y

Wetland Y is a Category III riverine, SS, wetland totaling approximately 0.01 acres in the northeast corner of the site, near Stream A's entry into the site, with two hydroperiods (SF, PFS). Hydrology

is supported by overbank flooding from Stream A, a high groundwater table, precipitation, and runoff, and flows generally west before discharging to Stream A. Vegetation is dominated by red alder, Himalayan blackberry, salmonberry, tall mannagrass, skunk cabbage, ladyfern, and water parsley. According to the Rating System, Wetland Y is a Category III wetland, scoring 6 points for water quality functions, 5 points for hydrologic functions, and 6 points for habitat functions, for a total score of 17 points.

#### *WETLAND Z*

Wetland Z is a Category III, riverine, SS, wetland totaling approximately 0.03 acres in the northeast corner of the site, near Stream A's entry into the site, with two hydroperiods (SO, PFS). Hydrology is supported by overbank flooding from Stream A, a high groundwater table, precipitation, and runoff, and flows generally northwest before discharging to Stream A. According to the Rating System, Wetland Z is a Category III wetland, scoring 6 points for water quality functions, 5 points for hydrologic functions, and 6 points for habitat functions, for a total score of 17 points.

#### **STREAMS**

##### *STREAM A*

Stream A is a Type-F stream that originates approximately one mile offsite to the northeast and enters the site in the northeast corner near Wetland Y and Wetland Z. Stream A flows westerly through the northern portion of the site, eventually discharging to Lacamas Lake approximately 0.60 miles southwest of the site (WDNR 2025; Figure 2). Onsite hydrology is supported by precipitation, a shallow groundwater table, and runoff from upslope areas. Riparian vegetation in the forested area in the northeast corner consists primarily of bigleaf maple, red alder, Himalayan blackberry, beaked hazelnut, salmonberry, lady fern, water parsley, cleavers, piggyback, skunk cabbage, and tall mannagrass. Riparian vegetation through the rest of the site consists primarily of tall fescue, reed canarygrass, velvetgrass, bentgrass, Kentucky bluegrass, Canada thistle, orchard grass, perennial ryegrass, and creeping buttercup. Streambed substrate in the northeastern and northwestern corners is composed of small to medium sized cobbles, pea gravel, sediment, and silty sands. The streambanks in the northeast corner are prominent with overhanging vegetation. Stream A's substrate throughout the rest of the site is composed of small cobbles, pea gravel, sediment, and silty sands, with downcut mad-made banks. Approximately two to six inches of flowing water was present in the northeast corner, with a maximum depth of approximately 12 inches in other areas throughout the site.

##### *STREAM B*

Stream B is a Type-F stream that begins at a culvert at the corner of NE 3<sup>rd</sup> Street and NE 252<sup>nd</sup> Avenue, crosses under NE 252<sup>nd</sup> Avenue via a culvert and flows offsite to the southeast, eventually discharging to Lacamas Lake after flowing generally southerly for approximately 0.80 miles (WDNR 2025). Onsite hydrology is supported by precipitation, a shallow groundwater table, and runoff from upslope areas. Onsite riparian vegetation consists primarily of tall fescue, velvetgrass, reed canarygrass, and curly dock. The streambed is composed of small to medium sized cobbles, pea gravel, sediment, and silty sands, with excavated banks. Stream B had a maximum depth of approximately twelve inches of flowing water during the site visit.

## BUFFERS

### WETLAND BUFFERS

Standard wetland buffers are based on wetland category and habitat score from the Rating System, in conjunction with the proposed land use intensity (*CMC 16.53.040(B)(2)*). Wetlands and their designated buffer widths according to *CMC* are summarized in Table 3.

### STREAM BUFFERS

According to *CMC 16.61.040(D)*, Type F, non-anadromous streams, with reaches that do not provide access for anadromous fish, require a 75-foot riparian buffer. According to Washington State Fish Passage online mapping (WDFW 2025b), Lacamas Lake may contain the presence of resident fish. Because both Stream A and Stream B outlet to Lacamas Lake, both are allocated a 75-foot buffer width. Stream buffers are summarized in Table 3.

**Table 4. Wetland and Stream Summary**

Identifier	Classification <sup>1,2,3</sup>	Cowardin Class, Hydroperiod <sup>4</sup>	Habitat Score/ Category <sup>5</sup>	Proposed Land Use Intensity	Buffer Width (feet) <sup>6,7</sup>
<b>Wetlands</b>					
Wetland A	Depressional	EM/ SF, SO	6, Cat. III	Low, Moderate, High	65, 100, 135
Wetland B	Depressional	FO, SO	6, Cat. III		65, 100, 135
Wetland C	Depressional	EM/SS, IFS	7, Cat. II		110, 165, 220
Wetland D	Depressional	FO, SF/SO	6, Cat. III		65, 100, 135
Wetland E	Slope	EM/ SO	4, Cat. IV		25, 40, 50
Wetland U	Riverine	FO/SS, SO/PFS	6, Cat. III		65, 100, 135
Wetland V	Slope	EM, SO	5, Cat. IV		25, 40, 50
Wetland W	Slope	EM, SO	6, Cat. III		65, 100, 135
Wetland X	Slope	EM, SO/IFS	5, Cat. IV		25, 40, 50
Wetland Y	Riverine	SS, SO/PFS	6, Cat. III		65, 100, 135
Wetland Z	Riverine	SS, SO/PFS	6, Cat. III		65, 100, 135
<b>Streams</b>					
Stream A	Type F <sup>3</sup>	--			75
Stream B	Type F <sup>2</sup>	--			75

<sup>1</sup>NRCS 2008. <sup>2</sup>WAC 222-16-031. <sup>3</sup>WDNR 2025. <sup>4</sup>FGDC 2013. <sup>5</sup>Hruby and Yahnke 2023. <sup>6</sup>CMC Tables 16.53.040-1,2,3. <sup>7</sup>CMC 16.61.040(D).

## FISH AND WILDLIFE HABITAT CONSERVATION AREAS

Fish and Wildlife Habitat Conservation Areas are regulated by *CMC Chapter 16.61* and include areas with which state or federally designated endangered, threatened, and sensitive species have a primary association, state priority habitats and areas associated with state priority species, habitats of local importance, naturally occurring ponds under 20 acres, waters of the state, bodies of water planted with game fish by a governmental or tribal entity, and state natural area preserves and natural resource conservation areas. Habitats of local importance include Camas lily of a significant concentration (0.25 acres or greater) and Oregon white oak trees with a diameter at breast height (DBH) of 20 inches or greater (*CMC 16.61.010(A)*).

## OREGON WHITE OAK

The Washington Department of Fish and Wildlife (WDFW) identifies which oak communities are considered priority habitats through its Priority Habitats and Species (PHS) program. The Washington Natural Heritage Program (WNHP) defines a North Pacific Oak Woodland as a community dominated or co-dominated by oak and associated with dry, low-elevation sites or those with frequent fires pre-settlement (Nolan and Azerrad 2024). Oregon white oak woodlands are associated with eight different plant communities, including a wide variety of native herbaceous and shrub species. Oak woodlands provide a mix of feeding, resting, and breeding habitat for many wildlife species (Nolan and Azerrad 2024). In addition to oak woodlands, individual oak trees can be considered a priority habitat if they provide considerable value to wildlife. In addition to woodland communities, oaks are also associated with prairies and savannas in Washington. These communities are considered wooded grasslands and are an association of upland grassland and meadows (Rocchio and Crawford 2015).

One oak was identified in the northeast corner and 45 oaks were identified in the southeastern portion of the site located on or near the herbaceous bald (Figures 3, 4, and 5). Although PHS mapping identifies oak woodlands in the vicinity of the 45 mapped oaks, an assessment will need to be completed to determine whether the oaks meet the requirements to be considered a woodland or individuals. Several of the oak trees meet WDFW priority habitat criteria for individual oaks. The oak inventory is provided in Table 4.

**Table 5. Oak Inventory**

Identifier	DBH (inches)	Identifier	DBH (inches)	Identifier	DBH (inches)
1	3	17	14	33	12
2*	13, 16	18	13	34*	20, 9
3	6	19	7	35	10
4	9	20	5	36	4
5	12	21	6	37	4
6	2	22	4	38	8
7	8	23*	18, 14	39	8
8	6	24*	9, 6	40	6
9	5	25	6	41	18
10	8	26	5	42	17
11	11	27	16	43	12
12	11	28	10	44*	10, 8
13	16	29*	11, 9	45	16
14	11	30	8	46	20
15	1	31	11		
16	9	32	10		

\*Split trunk

## PRIORITY SNAGS

Trees are considered snags by WDFW if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavations and use by wildlife (WDFW 2025a). Priority snags

have a DBH of greater than 12 inches and are at least 6.5 feet tall. ELS biologists identified 30 snags onsite, all of which are considered priority snags (Table 6; Figures 3 and 6).

**Table 6. Snag Inventory**

Identifier	DBH (inches)	Identifier	DBH (inches)
1	13	16	18
2	13	17	17
3	27	18	17
4	24	19	22
5	22	20	19
6	21	21	18
7	34	22	27
8	40	23	25
9	19	24	16
10	16	25	23
11	31	26	19
12	25	27	15
13	17	28	25
14	23	29	19
15	18	30	17

**HERBACEOUS BALD HABITAT**

According to CMC 16.61.010(A)(2), priority habitats and species are identified by WDFW; however, CMC 16.61.010(A)(1) states that lists, categories, and definitions of species promulgated by WDFW are provided to the City to be used for guidance only. According to the WDFW Priority Habitat and Species List (WDFW 2008) herbaceous balds are defined as:

*“...variable-sized patches of grass and forb vegetation located on shallow soils over bedrock that commonly is fringed by forest or woodland. Typically consists of low-growing vegetation adapted for survival on shallow soils amid seasonally dry conditions, and is often on steep slopes. Dominant flora includes herbaceous vegetation, dwarf shrubs, mosses, and lichens. Rock outcrops, boulders, and scattered trees are often present, especially Douglas-fir, Pacific madrone, and Oregon white oak. Balds occur within mid-montane to lowland forest zones. On slopes near saltwater shorelines in the northern Puget Trough, herbaceous balds and herbaceous bluffs can sometimes be difficult to differentiate. Balds typically are smaller than 5 ha (12 ac), although some can be up to about 100 ha (≅ 250 ac)” (WDFW 2008).*

ELS biologists identified one area onsite that meets herbaceous bald criteria, located near the southern boundary and totaling approximately 1.44 acres in size. This area is defined by shallow soils with vegetation dominated by Oregon white oak, Douglas fir, red alder, Nootka rose snowberry, tall Oregon grape, poison oak, beaked hazelnut, wild strawberry, Camas lily, trillium, western swordfern, and western columbine. Many oaks were rooted on the herbaceous bald and displayed stunted crowns and curled leaves, likely from stress related to shallow soils and shading

by Douglas fir trees. Herbaceous bald boundaries were delineated based on vegetation and the presence of bedrock under shallow soils.

## LIMITATIONS

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ELS bases the above listed determinations and conclusions on standard scientific methodology and best professional judgment. In our opinion, local, state, and federal regulatory agencies should agree with the conclusions of this report. However, this should be considered a preliminary report and should be used at your own risk until it has been reviewed and approved in writing by the appropriate regulatory agencies. ELS is not responsible for the impacts of any changes in environmental standards, practices, or regulations after the date of this report.

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## FIGURES AND PHOTOPLATES

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WASHINGTON

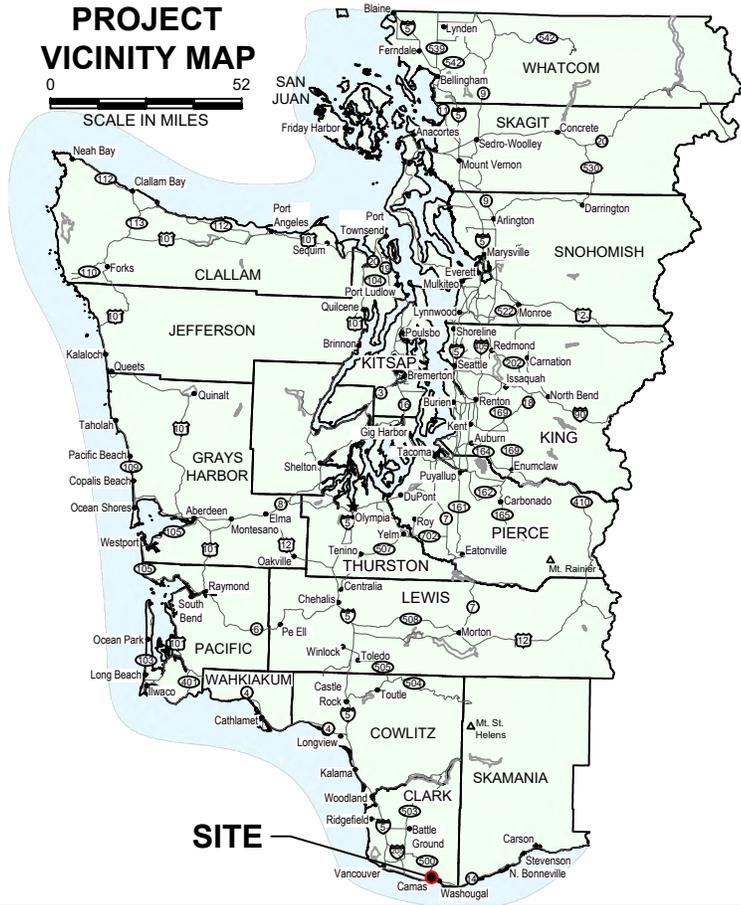


45.6247° Latitude  
-122.4166° Longitude

LOCATION MAP

		R 3 E			
	6				1
T 2 N			27		
					36
	31				

PROJECT VICINITY MAP



SITE

**NOTE:**  
Quadrangle topographic map from USGS.

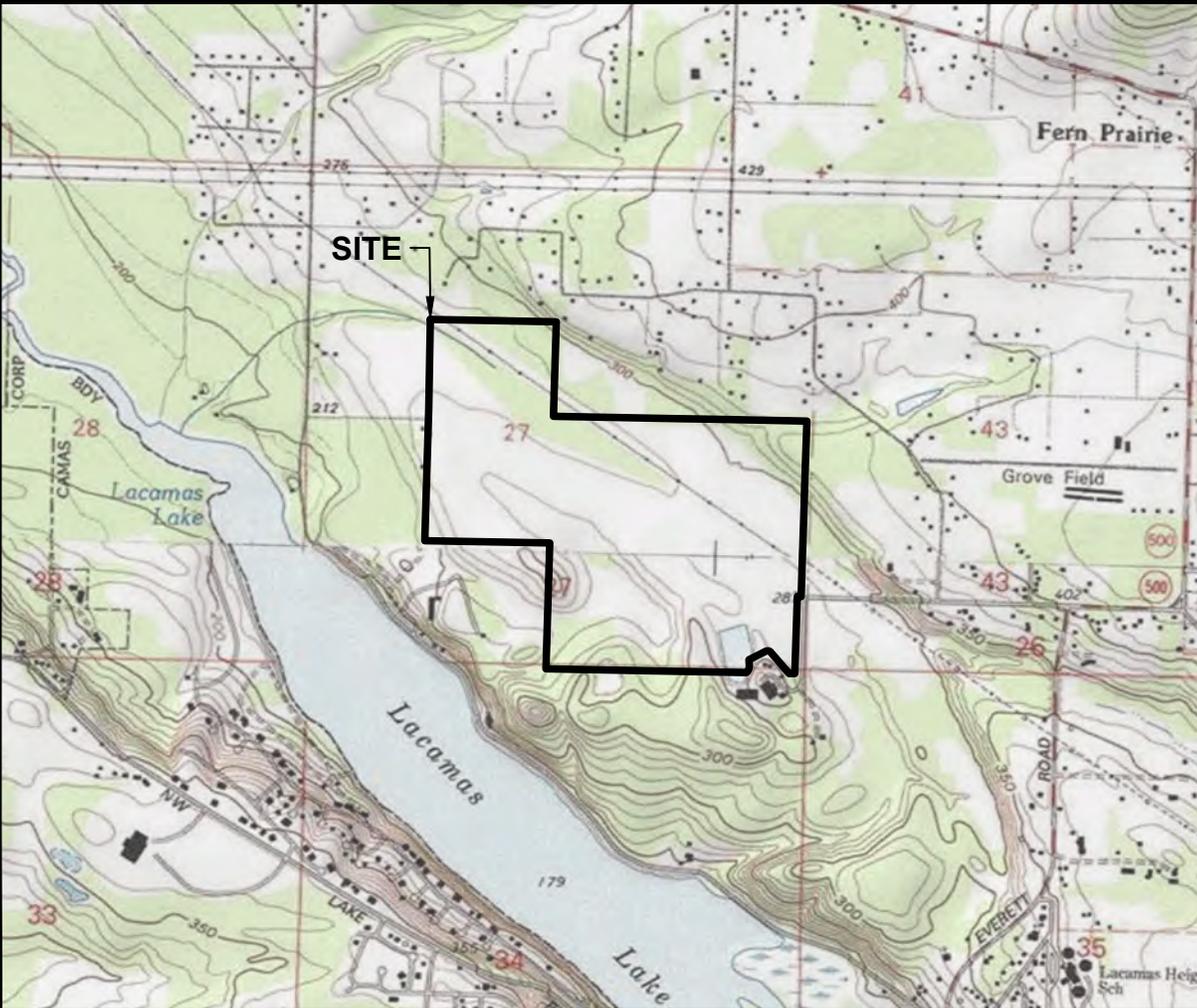
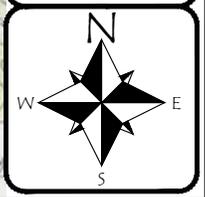


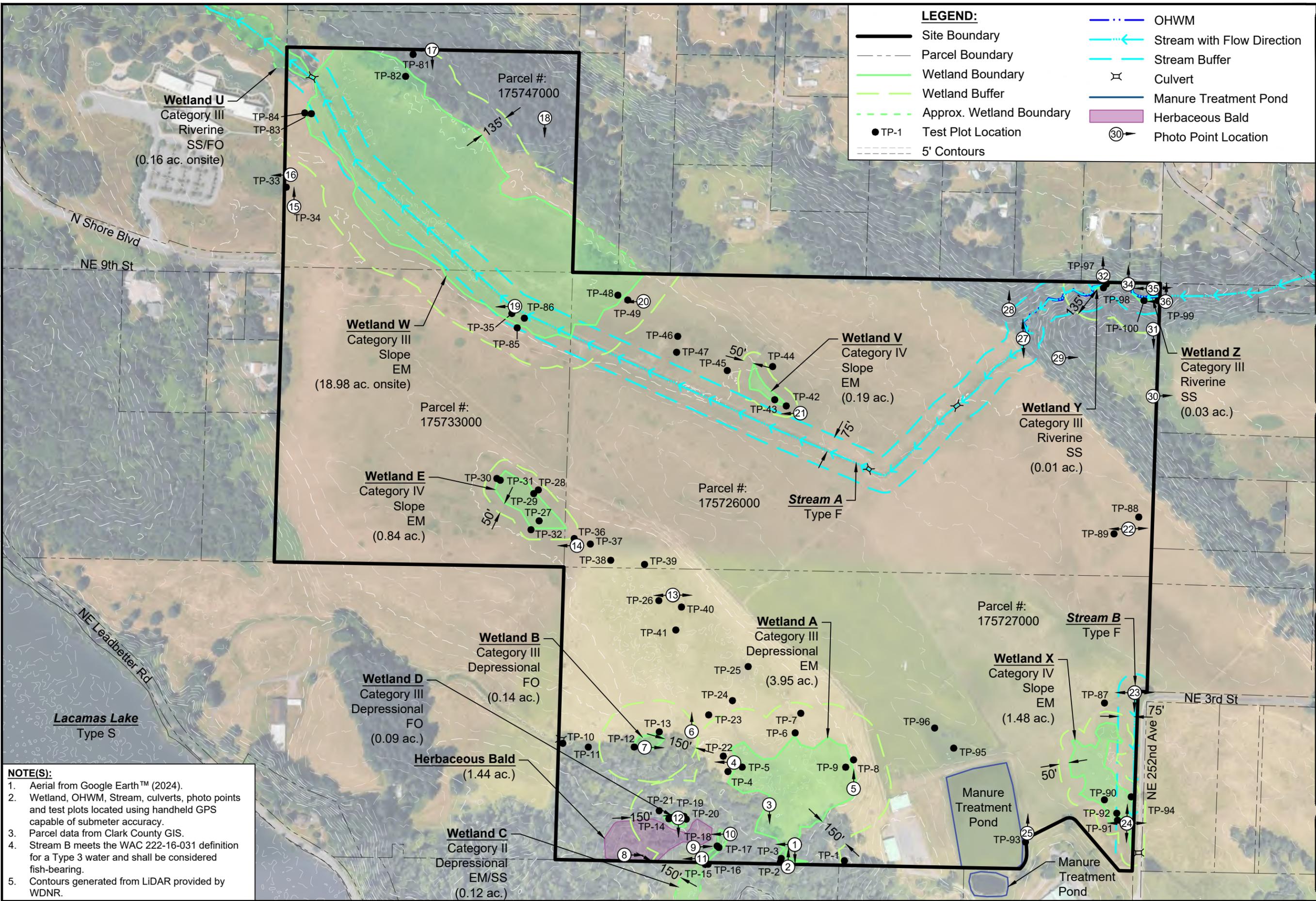
Figure 1  
VICINITY MAP  
Lacamas Northshore  
SunCal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
DWN: EF  
REQ. BY: OM  
PRJ. MGR: JB  
CHK:  
PROJECT NO:  
4426.01

1157 3rd Ave., Suite 220A  
Longview, WA 98632  
Phone: (360) 578-1371  
Fax: (360) 414-9305  
www.eco-land.com



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**LEGEND:**

- Site Boundary
- Parcel Boundary
- Wetland Boundary
- Wetland Buffer
- Approx. Wetland Boundary
- TP-1 Test Plot Location
- 5' Contours
- OHWM
- Stream with Flow Direction
- Stream Buffer
- Culvert
- Manure Treatment Pond
- Herbaceous Bald
- Photo Point Location

**Wetland U**  
Category III  
Riverine  
SS/FO  
(0.16 ac. onsite)

**Wetland W**  
Category III  
Slope  
EM  
(18.98 ac. onsite)

**Wetland E**  
Category IV  
Slope  
EM  
(0.84 ac.)

**Wetland B**  
Category III  
Depressional  
FO  
(0.14 ac.)

**Wetland D**  
Category III  
Depressional  
FO  
(0.09 ac.)

**Herbaceous Bald**  
(1.44 ac.)

**Wetland C**  
Category II  
Depressional  
EM/SS  
(0.12 ac.)

**Wetland A**  
Category III  
Depressional  
EM  
(3.95 ac.)

**Wetland X**  
Category IV  
Slope  
EM  
(1.48 ac.)

**Wetland V**  
Category IV  
Slope  
EM  
(0.19 ac.)

**Wetland Y**  
Category III  
Riverine  
SS  
(0.01 ac.)

**Wetland Z**  
Category III  
Riverine  
SS  
(0.03 ac.)

- NOTE(S):**
- Aerial from Google Earth™ (2024).
  - Wetland, OHWM, Stream, culverts, photo points and test plots located using handheld GPS capable of submeter accuracy.
  - Parcel data from Clark County GIS.
  - Stream B meets the WAC 222-16-031 definition for a Type 3 water and shall be considered fish-bearing.
  - Contours generated from LIDAR provided by WDNR.

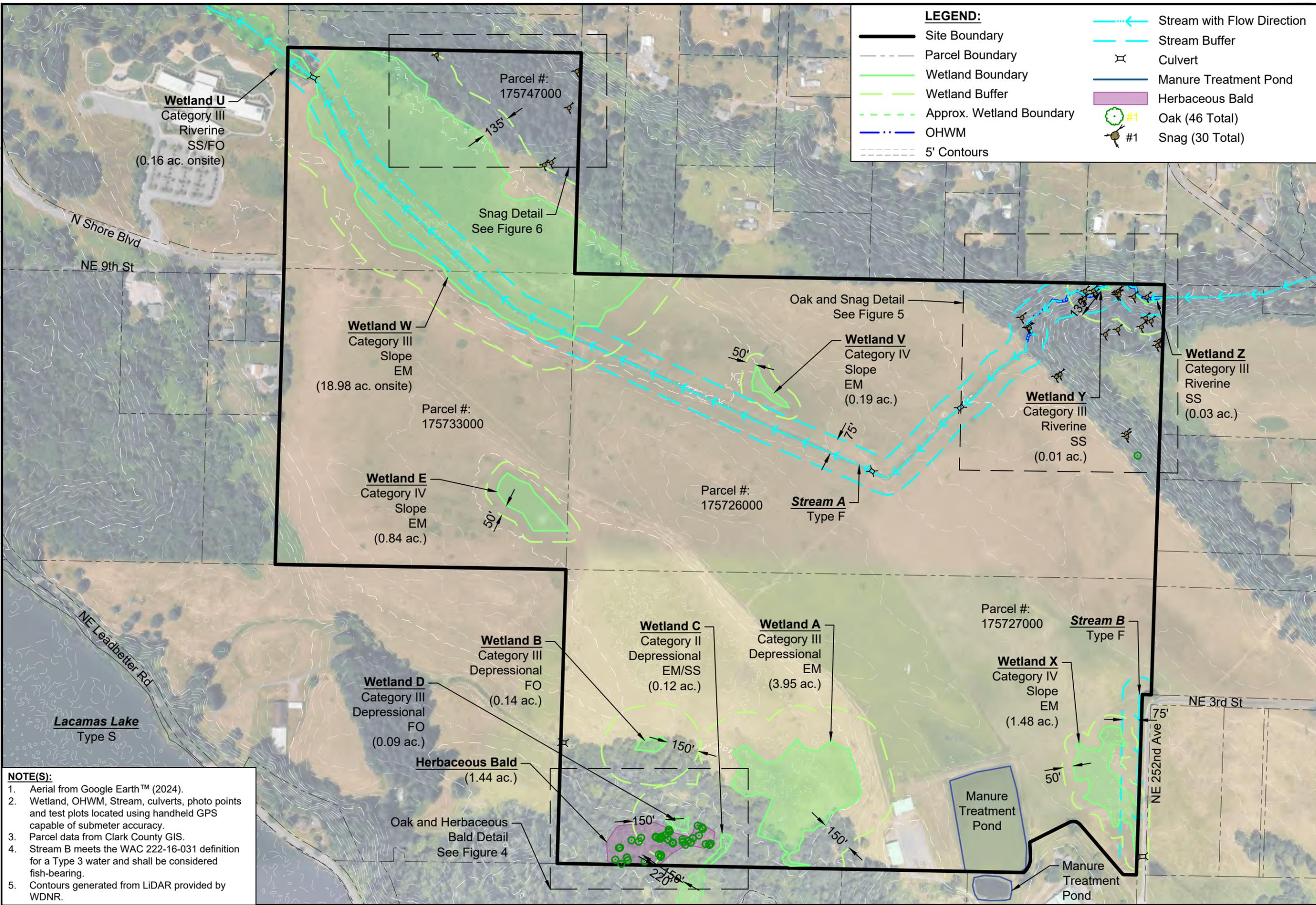
**Figure 2**  
**EXISTING CONDITIONS**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
DWN: EF  
REQ. BY: OM  
PRJ. MGR: JB  
CHK: CHK  
PROJECT NO: 4426.01

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**LEGEND:**

- Site Boundary
- Parcel Boundary
- Wetland Boundary
- Wetland Buffer
- Approx. Wetland Boundary
- OHWM
- 5' Contours
- Stream with Flow Direction
- Stream Buffer
- Culvert
- Manure Treatment Pond
- Herbaceous Bald
- Oak (#1) (46 Total)
- Snag (#1) (30 Total)

**Wetland U**  
Category III  
Riverine  
SS/FO  
(0.16 ac. onsite)

Parcel #:  
175747000

Snag Detail  
See Figure 6

**Wetland W**  
Category III  
Slope  
EM  
(18.98 ac. onsite)

Parcel #:  
175733000

**Wetland E**  
Category IV  
Slope  
EM  
(0.84 ac.)

Oak and Snag Detail  
See Figure 5

**Wetland V**  
Category IV  
Slope  
EM  
(0.19 ac.)

**Wetland Y**  
Category III  
Riverine  
SS  
(0.01 ac.)

**Wetland Z**  
Category III  
Riverine  
SS  
(0.03 ac.)

Parcel #:  
175726000

**Stream A**  
Type F

Parcel #:  
175727000

**Stream B**  
Type F

**Wetland X**  
Category IV  
Slope  
EM  
(1.48 ac.)

**Wetland B**  
Category III  
Depressional  
FO  
(0.14 ac.)

**Wetland C**  
Category II  
Depressional  
EM/SS  
(0.12 ac.)

**Wetland A**  
Category III  
Depressional  
EM  
(3.95 ac.)

**Wetland D**  
Category III  
Depressional  
FO  
(0.09 ac.)

**Herbaceous Bald**  
(1.44 ac.)

Oak and Herbaceous  
Bald Detail  
See Figure 4

Manure  
Treatment  
Pond

Manure  
Treatment  
Pond

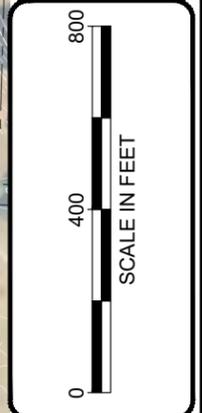
- NOTE(S):**
- Aerial from Google Earth™ (2024).
  - Wetland, OHWM, Stream, culverts, photo points and test plots located using handheld GPS capable of submeter accuracy.
  - Parcel data from Clark County GIS.
  - Stream B meets the WAC 222-16-031 definition for a Type 3 water and shall be considered fish-bearing.
  - Contours generated from LIDAR provided by WDNR.

Figure 3  
**PRIORITY HABITAT OVERVIEW**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.

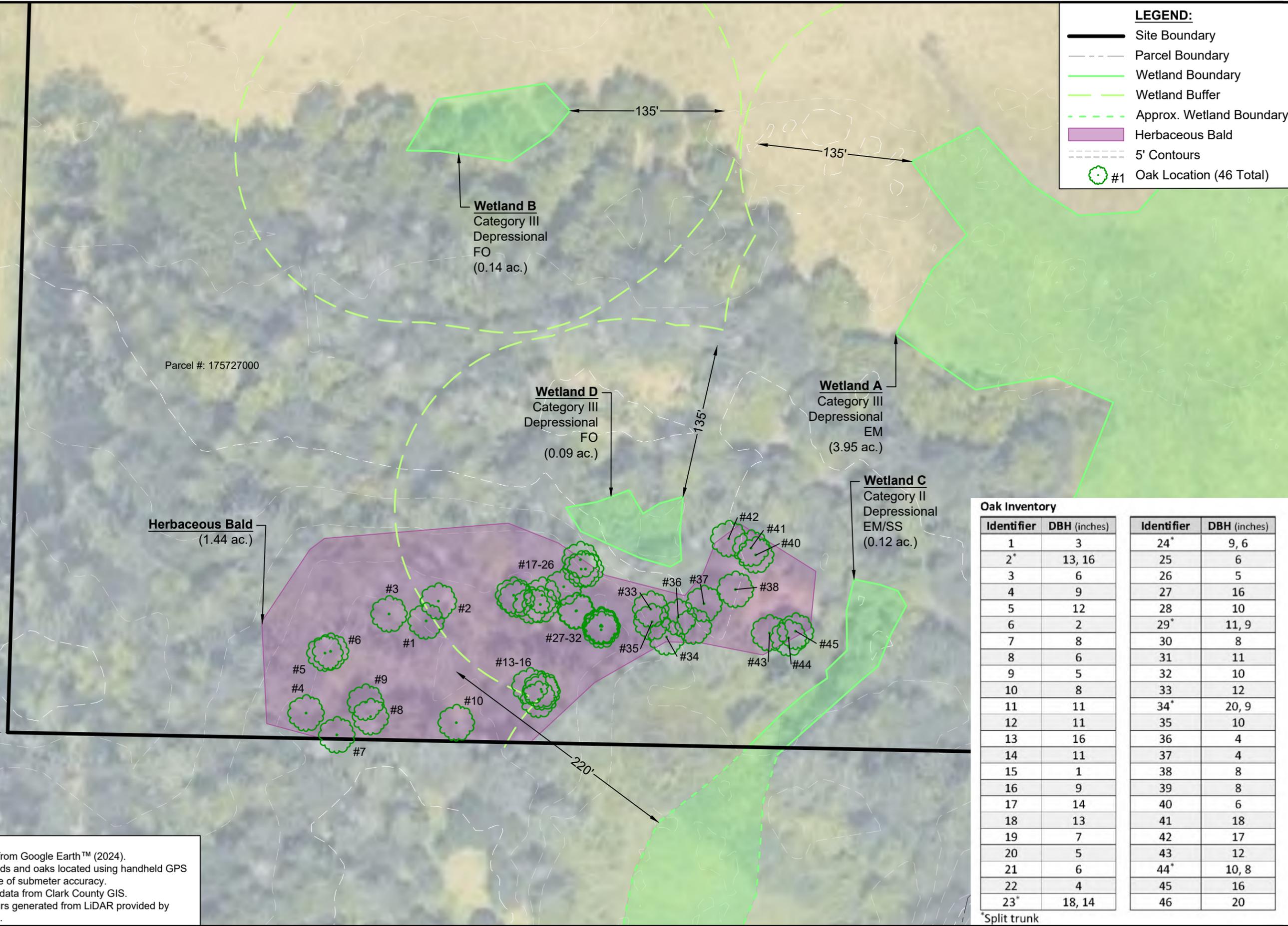
DATE: 11/17/25  
DWN: EF  
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PRJ. MGR: JB  
CHK:  
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**Ecological  
Land Services**



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**LEGEND:**

- Site Boundary
- Parcel Boundary
- Wetland Boundary
- Wetland Buffer
- Approx. Wetland Boundary
- Herbaceous Bald
- 5' Contours
- #1 Oak Location (46 Total)

Parcel #: 175727000

**Wetland B**  
Category III  
Depressional  
FO  
(0.14 ac.)

**Wetland D**  
Category III  
Depressional  
FO  
(0.09 ac.)

**Wetland A**  
Category III  
Depressional  
EM  
(3.95 ac.)

**Wetland C**  
Category II  
Depressional  
EM/SS  
(0.12 ac.)

**Herbaceous Bald**  
(1.44 ac.)

- #1
- #2
- #3
- #4
- #5
- #6
- #7
- #8
- #9
- #10
- #13-16
- #17-26
- #27-32
- #33
- #34
- #35
- #36
- #37
- #38
- #40
- #41
- #42
- #43
- #44
- #45

**Oak Inventory**

Identifier	DBH (inches)	Identifier	DBH (inches)
1	3	24*	9, 6
2*	13, 16	25	6
3	6	26	5
4	9	27	16
5	12	28	10
6	2	29*	11, 9
7	8	30	8
8	6	31	11
9	5	32	10
10	8	33	12
11	11	34*	20, 9
12	11	35	10
13	16	36	4
14	11	37	4
15	1	38	8
16	9	39	8
17	14	40	6
18	13	41	18
19	7	42	17
20	5	43	12
21	6	44*	10, 8
22	4	45	16
23*	18, 14	46	20

\*Split trunk

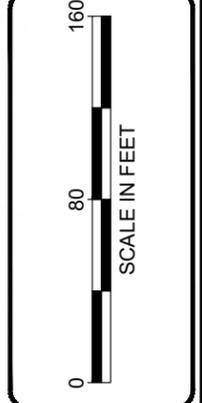
**NOTE(S):**

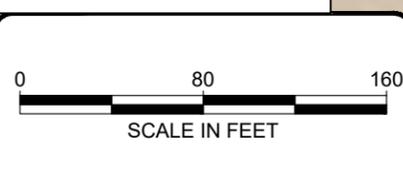
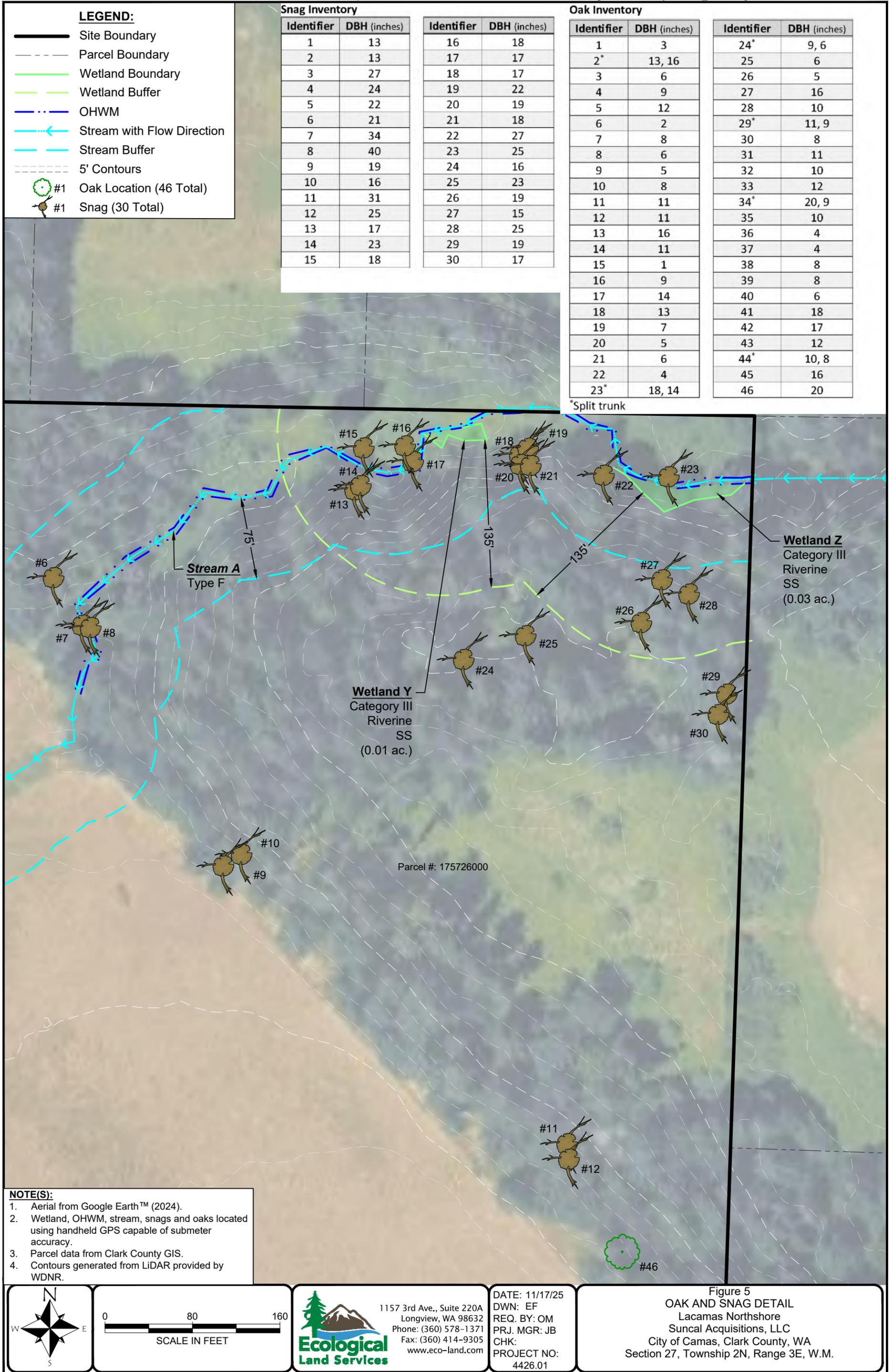
1. Aerial from Google Earth™ (2024).
2. Wetlands and oaks located using handheld GPS capable of submeter accuracy.
3. Parcel data from Clark County GIS.
4. Contours generated from LIDAR provided by WDNR.

Figure 4  
**OAK AND HERBACEOUS BALD DETAIL**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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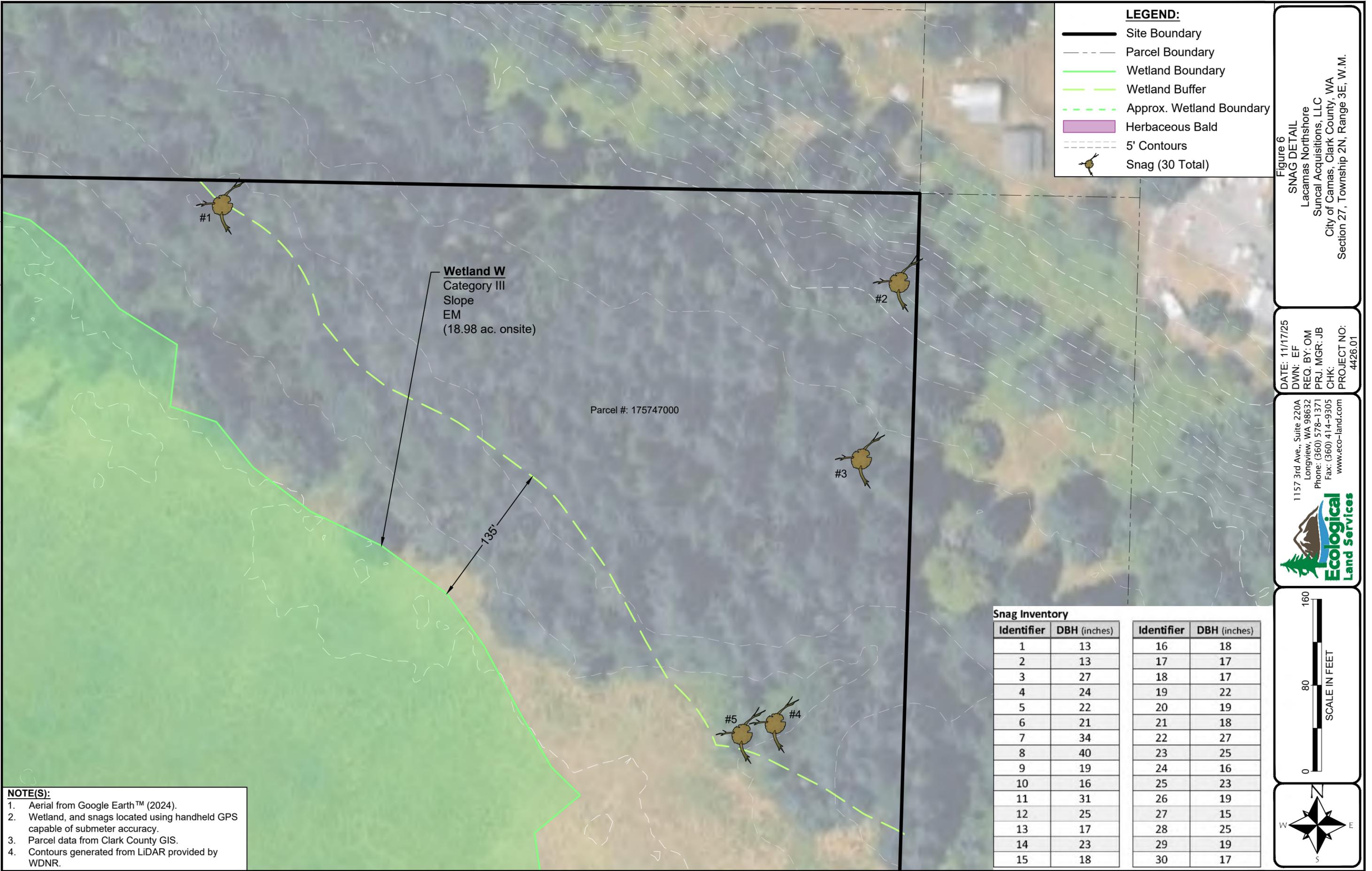




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Figure 5  
 OAK AND SNAG DETAIL  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.



**LEGEND:**

- Site Boundary
- Parcel Boundary
- Wetland Boundary
- Wetland Buffer
- Approx. Wetland Boundary
- Herbaceous Bald
- 5' Contours
- Snag (30 Total)

Figure 6  
 SNAG DETAIL  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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**NOTE(S):**

1. Aerial from Google Earth™ (2024).
2. Wetland, and snags located using handheld GPS capable of submeter accuracy.
3. Parcel data from Clark County GIS.
4. Contours generated from LIDAR provided by WDNR.

**Snag Inventory**

Identifier	DBH (inches)	Identifier	DBH (inches)
1	13	16	18
2	13	17	17
3	27	18	17
4	24	19	22
5	22	20	19
6	21	21	18
7	34	22	27
8	40	23	25
9	19	24	16
10	16	25	23
11	31	26	19
12	25	27	15
13	17	28	25
14	23	29	19
15	18	30	17

SCALE IN FEET

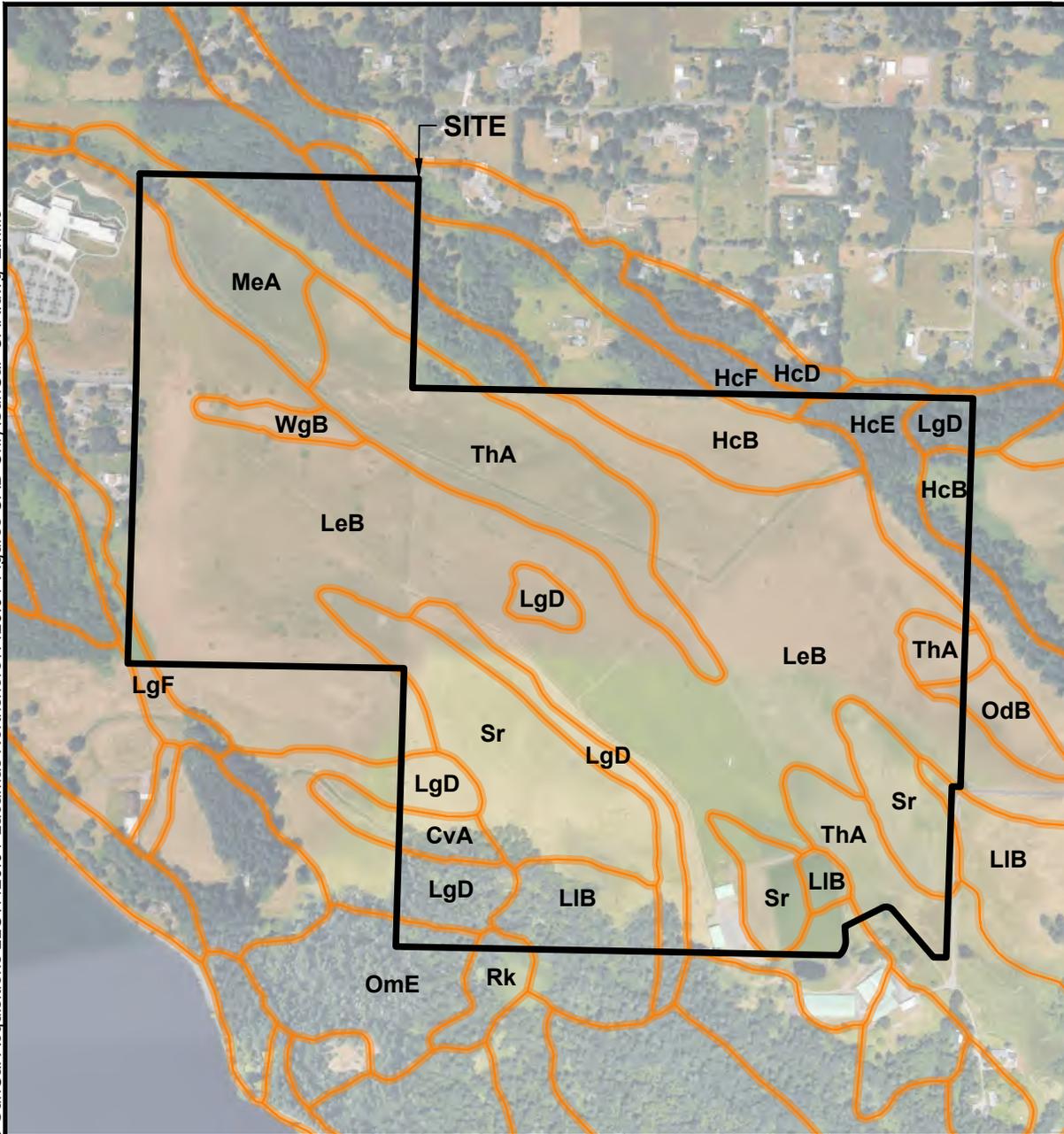


Figure 7  
 NRCS SOIL SURVEY  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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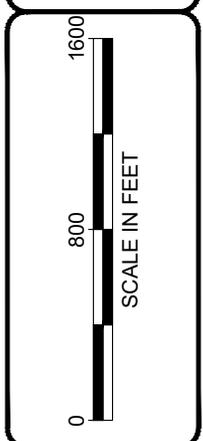
**LEGEND:**

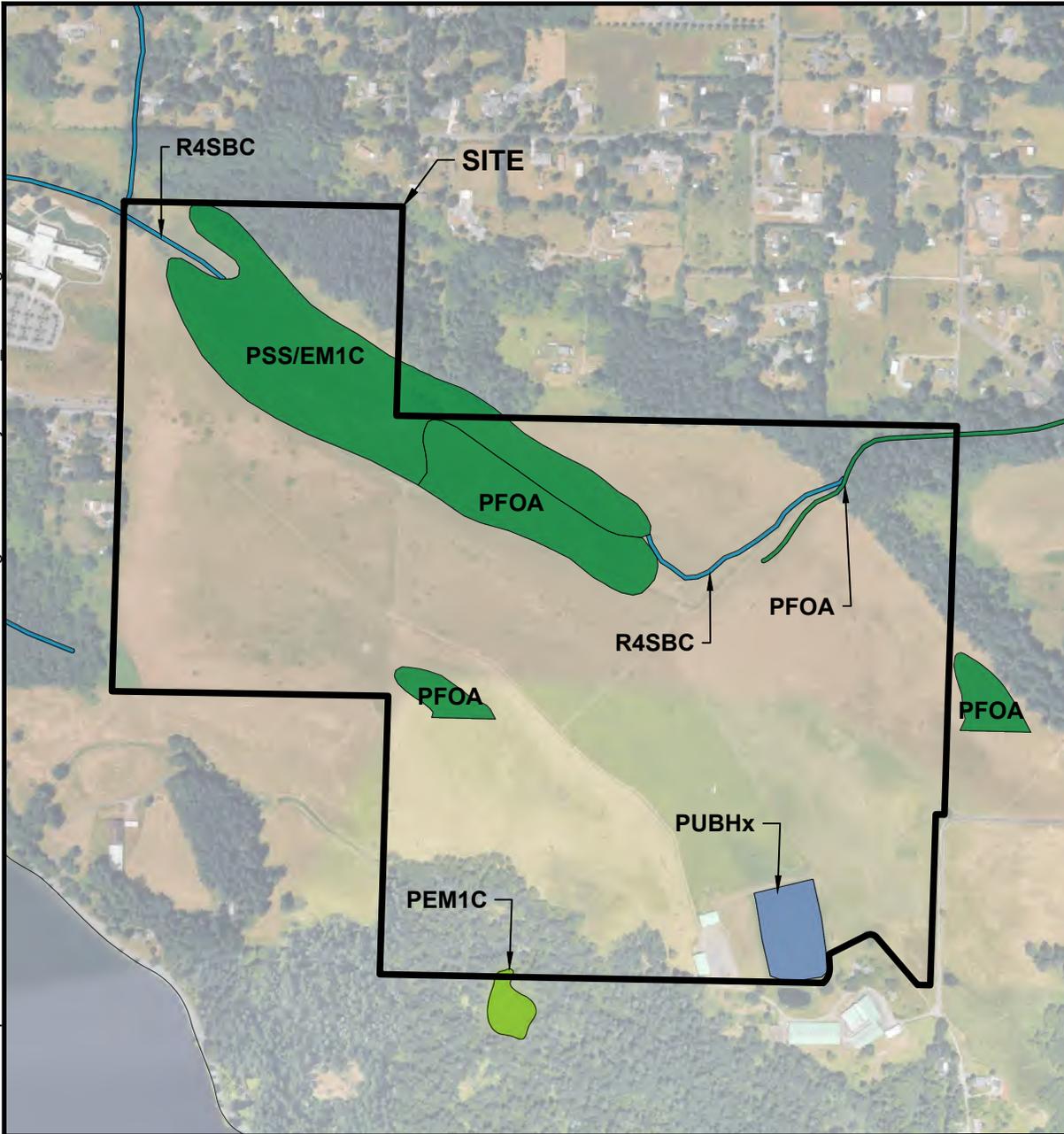
- Site Boundary
- NRCS Soil Boundary

- CvA** Cove silty clay loam, 0 to 3 percent slopes. Hydric.
- HcB** Hesson clay loam, 0 to 8 percent slopes. Not hydric.
- HcD** Hesson clay loam, 8 to 20 percent slopes. Not hydric.
- HcE** Hesson clay loam, 20 to 30 percent slopes. Not hydric.
- HcF** Hesson clay loam, 30 to 55 percent slopes. Not hydric.
- LeB** Lauren loam, 0 to 8 percent slopes. Not hydric.
- LgD** Lauren gravelly loam, 8 to 20 percent slopes. Not hydric.
- LgF** Lauren gravelly loam, 20 to 45 percent slopes. Not hydric.
- LIB** Lauren very gravelly loam, 0 to 8 percent slopes. Not hydric.
- OmE** Olympic stony clay loam, 3 to 30 percent slopes. Not hydric.
- ThA** Tisch silt loam, 0 to 3 percent slopes. Hydric.
- Sr** Semiahmoo muck. Hydric.
- Rk** Rock land. Not hydric.
- WgB** Washougal gravelly loam, 0 to 8 percent slopes. Not hydric.

**NOTE(S):**

1. Map provided on-line by NRCS at web address:  
<http://websoilsurvey.nrcs.usda.gov/app/>





No mapped wetlands indicated onsite by US Fish & Wildlife Service.

**LEGEND:**

— Site Boundary

**Wetlands**

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

**PEM1C** Palustrine, emergent, persistent, seasonally flooded.

**PFOA** Palustrine, forested, temporarily flooded.

**PSS/EM1C** Palustrine, scrub-shrub, emergent, persistent, seasonally flooded.

**PUBHx** Palustrine, unconsolidated bottom, permanently flooded, excavated.

**R4SBC** Riverine, intermittent, streambed, seasonally flooded.

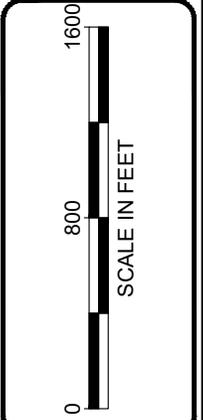
**NOTE(S):**

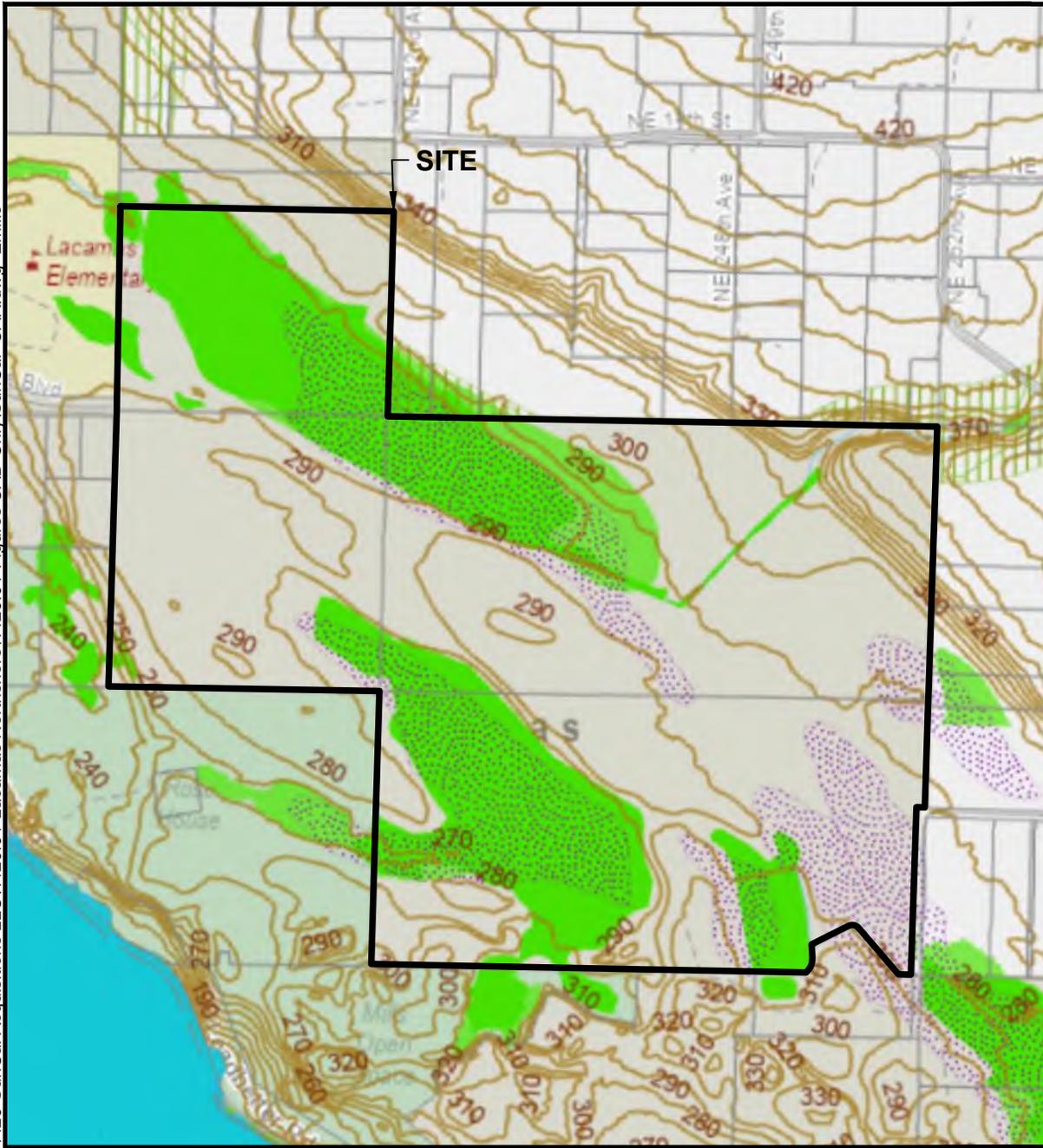
1. Map provided on-line by US Fish & Wildlife Service at web address:  
<https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>

Figure 8  
**USFWS NATIONAL WETLANDS INVENTORY**  
 Lacamas Northshore  
 Suncal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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**Figure 9**  
**CLARK COUNTY CRITICAL AREAS**  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

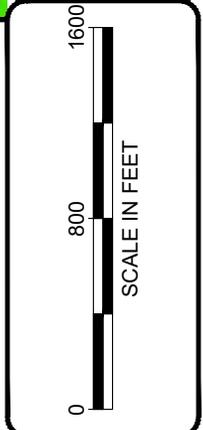
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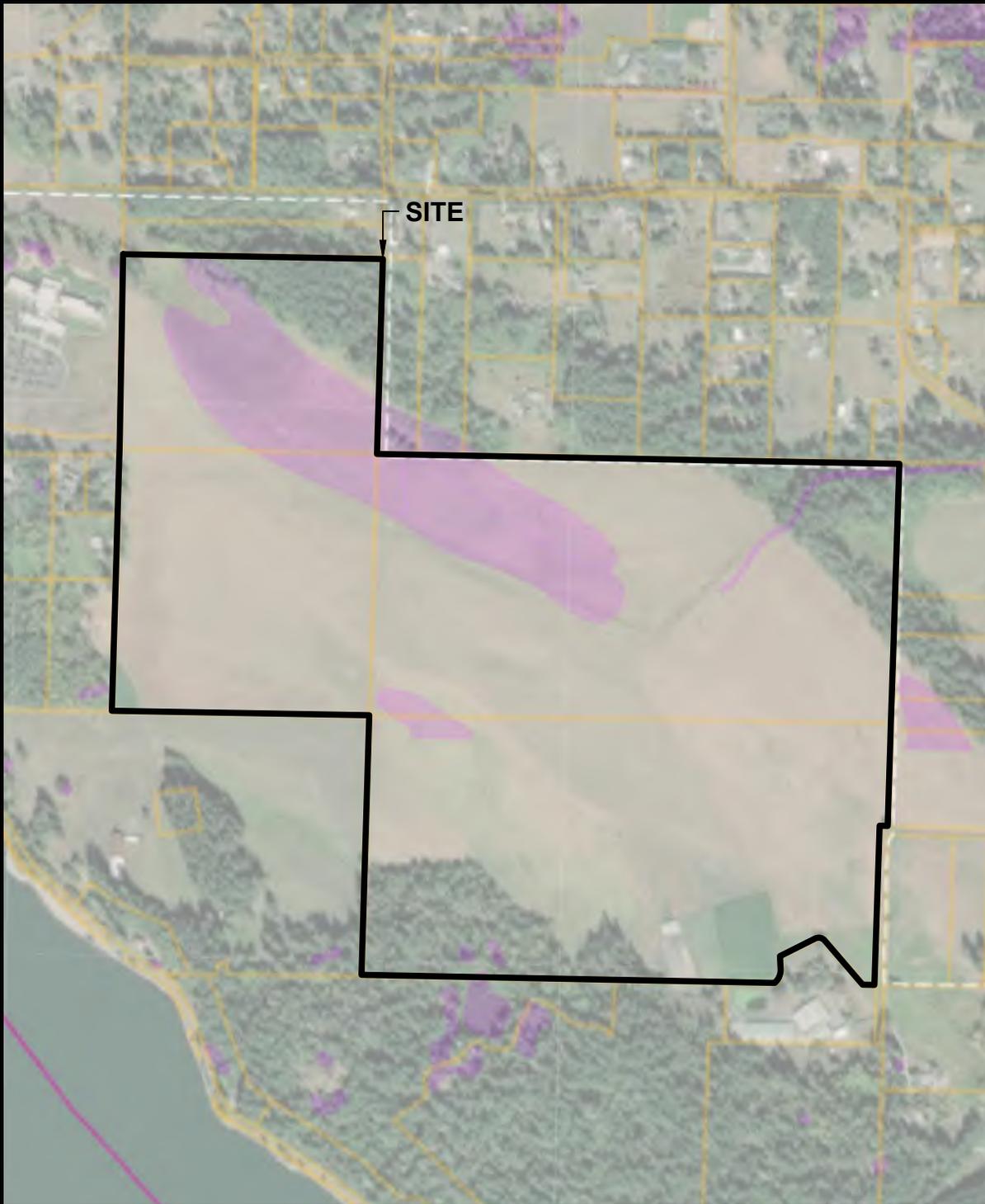
**LEGEND:**

- Site Boundary
- Environmental Priority Habitats and Species Group
- Riparian Habitat
- Riparian Habitat Area
- Slopes and Geologic Hazards Group
- Contour Lines
- Contour Lines - 10 ft
- Soils and Wetlands Inventory Hydric Soils
- Potential Wetlands Presence
- Permitted Wetland
- Environmental Constraints Floodway or Floodway Fringe



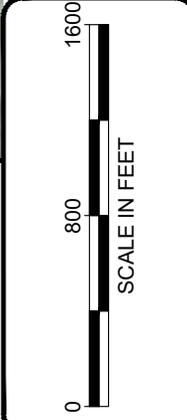
**NOTE(S):**

1. Map provided on-line by Clark County at web address: <https://gis.clark.wa.gov/maponline/index.cfm?site=Environmental>



- LEGEND:**
-  Site Boundary
  -  Parcel Boundary
  -  Freshwater Forested/Shrub Wetland
  -  Freshwater Emergent Wetland
  -  Oak Woodland
- By Township:  
Cave or Cave-rich areas

**NOTE:** Map provided on-line by Washington State Department of Fish & Wildlife at web address:  
<http://apps.wdfw.wa.gov/phsontheweb/>

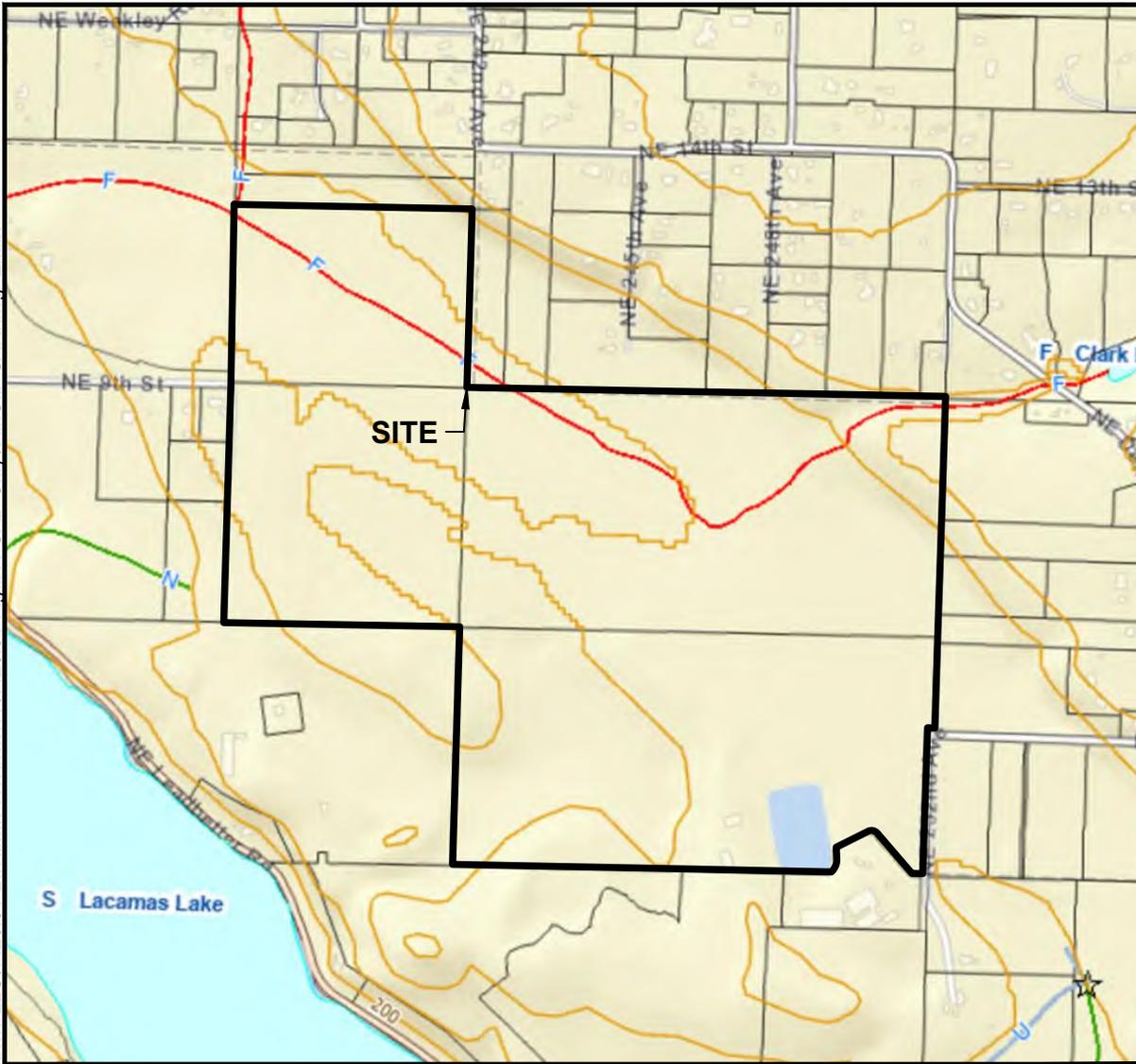



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Figure 10  
WDFW PRIORITY HABITATS AND SPECIES  
Lacamas Northshore  
Suncal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.



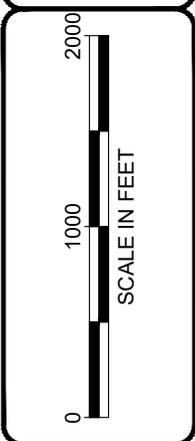
**LEGEND:**

- Site Boundary
- 40-foot Contours
- 40 ft. Contours
- Water Bodies (FP)
- Open Freshwater
- Water Courses (FP)
- Type F
- Type N, Np, Ns
- U, unknown
- Water Type Breaks (FP)

Figure 11  
 WDNR FPAMT  
 Lacamas Northshore  
 Suncal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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**NOTE:** Map provided on-line by Washington State Department of Natural Resources at web address: <http://fortress.wa.gov/dnr/app1/Fpars/viewer.htm>

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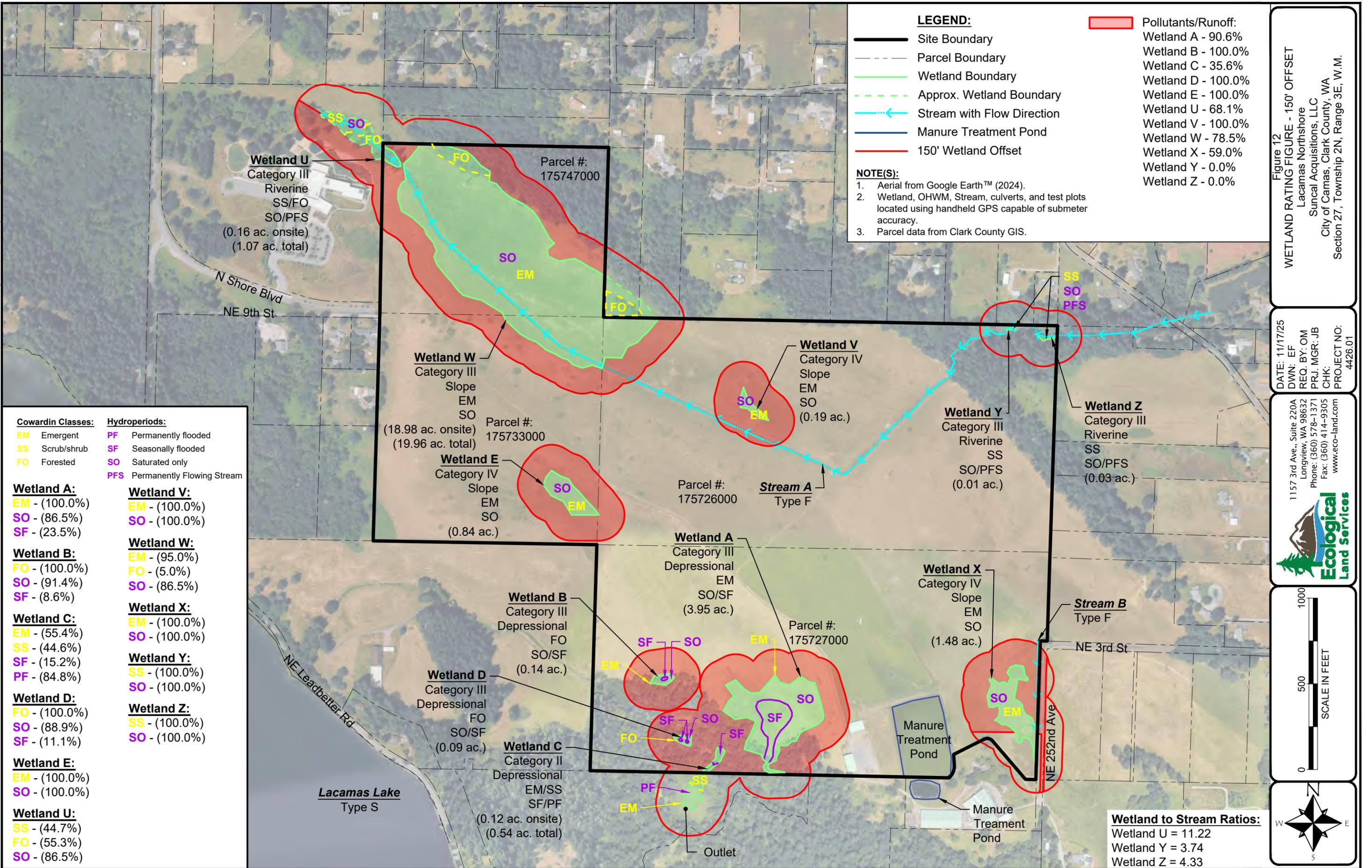


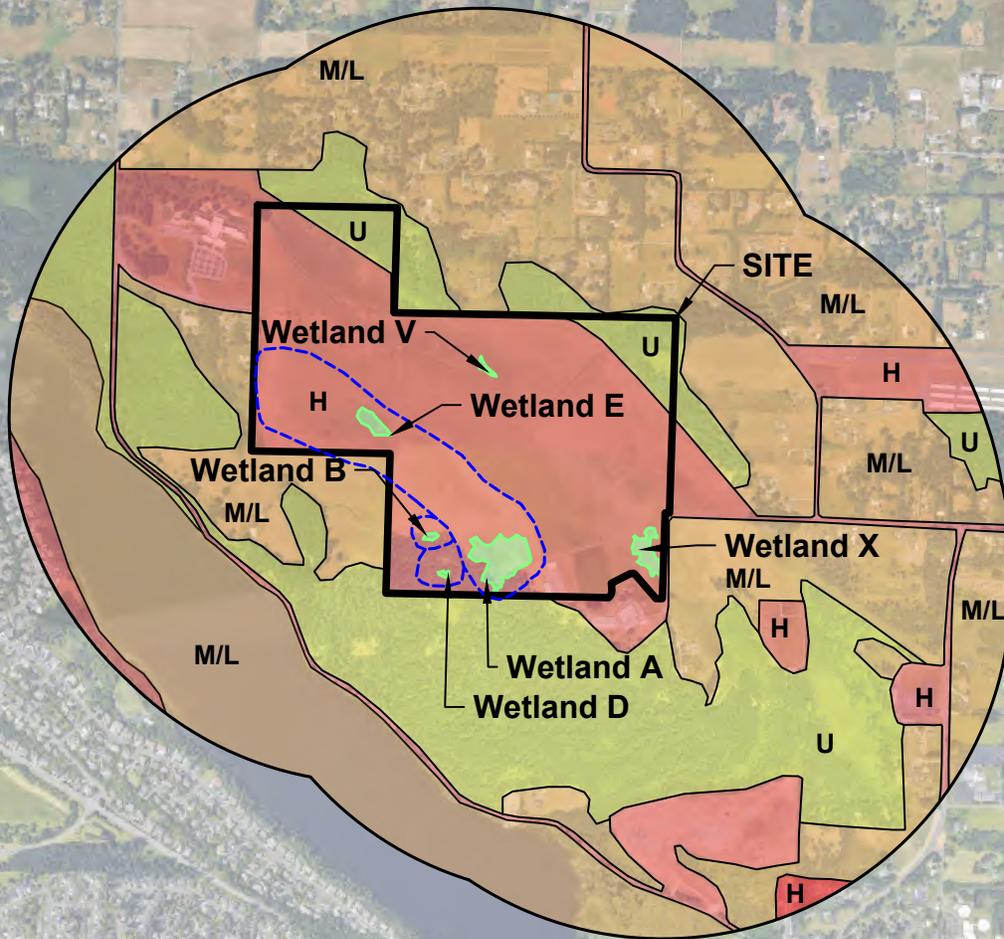
Figure 12  
WETLAND RATING FIGURE - 150' OFFSET  
Lacamas Northshore  
SunCal Acquisitions, LLC  
City of Camas, Clark County, WA  
Section 27, Township 2N, Range 3E, W.M.

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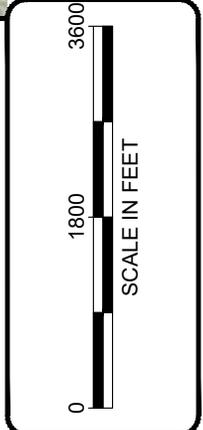




**Figure 13**  
**WETLANDS A,B,D,E,V,X RATING FORM - 1 km OFFSET**  
 Lacamas Northshore  
 Suncal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
 DWN: EF  
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**LEGEND:**

- Site Boundary
- Wetland Unit Boundary
- Contributing Basin:  
 12.6 x Larger than Wetland A  
 14.3 x Larger than Wetland B  
 35.6 x Larger than Wetland D

**H2.1 Accessible Habitat**

- A-U A-U (0.0%)
- A-M/L A-M/L (0.0%)

**H2.2 Undisturbed Habitat**

- U U (23.4%)
- M/L M/L (54.2%)

**H2.3 Land Use Intensity**

- H H (22.4%)

**H 2.1. Accessible Habitat Equation**

$$\% \text{ [A-U] habitat } \mathbf{0.0\%} + [(\% \text{ [A-M/L] intensity land uses})/2] \mathbf{0.0\%} = \mathbf{0.0\%}$$

**H 2.2. Total Undisturbed Habitat Equation**

$$\% \text{ [A-U] } + \% \text{ [U] habitat } \mathbf{23.4\%} + [(\% \text{ [A-M/L] } + \% \text{ [M/L] land uses})/2] \mathbf{27.1\%} = \mathbf{50.5\%}$$

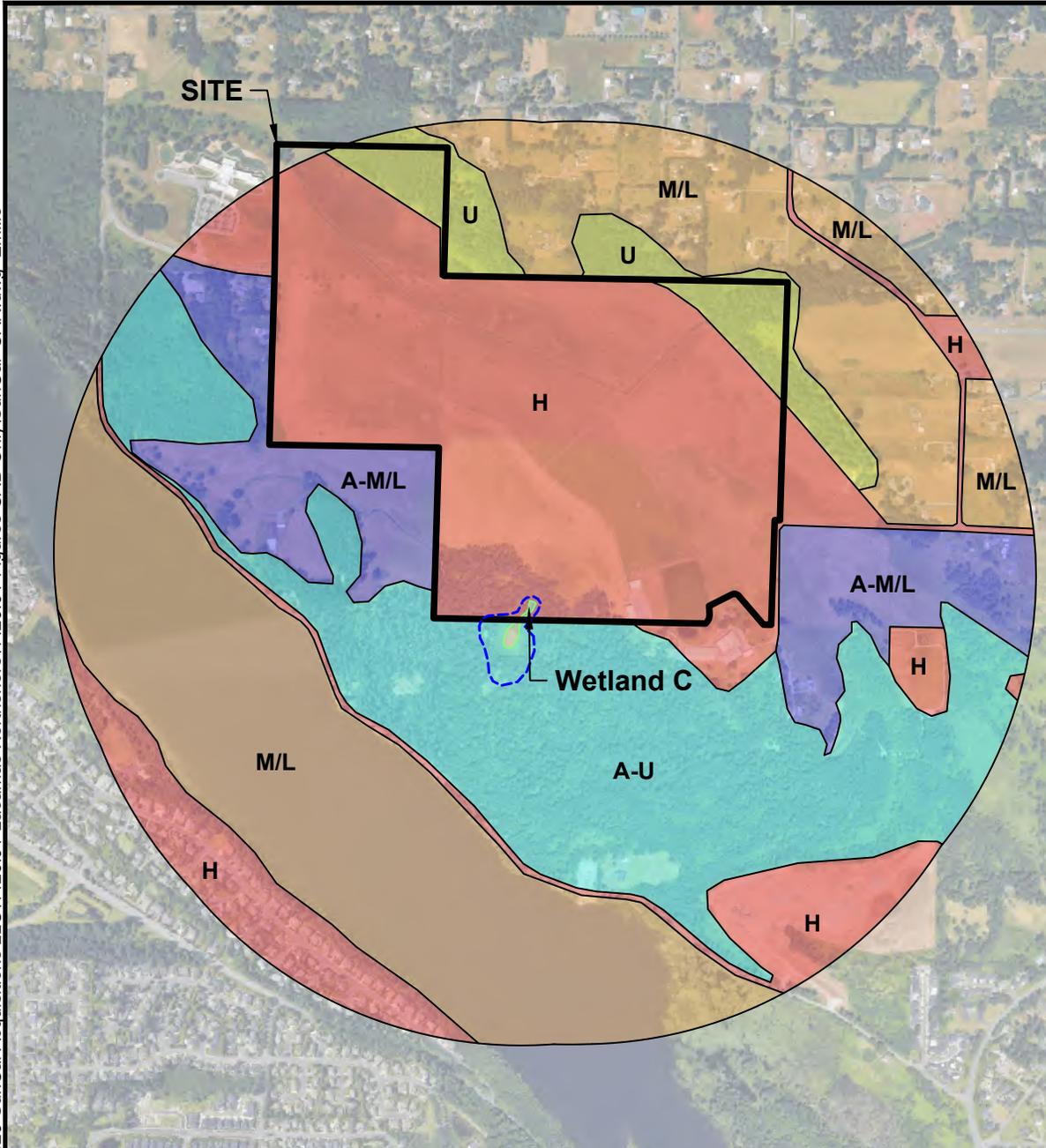
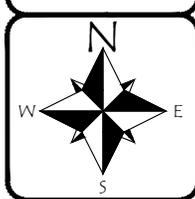
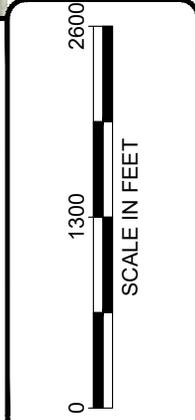


Figure 14  
**WETLAND C RATING FORM-1 km OFFSET**  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

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**LEGEND:**

- Site Boundary
- Wetland Unit Boundary
- Contributing Basin:  
8.5 x Larger than Wetland C

**H2.1 Accessible Habitat**

- A-U A-U (22.0%)
- A-M/L A-M/L (9.7%)

**H2.2 Undisturbed Habitat**

- U U (4.5%)
- M/L M/L (31.1%)

**H2.3 Land Use Intensity**

- H H (32.6%)

**H 2.1. Accessible Habitat Equation**

$$\% \text{A-U habitat } 22.0\% + [(\% \text{A-M/L intensity land uses})/2] 4.9\% = 26.9\%$$

**H 2.2. Total Undisturbed Habitat Equation**

$$\% \text{A-U} + \% \text{U habitat } 26.5\% + [(\% \text{A-M/L} + \% \text{M/L land uses})/2] 20.4\% = 46.9\%$$

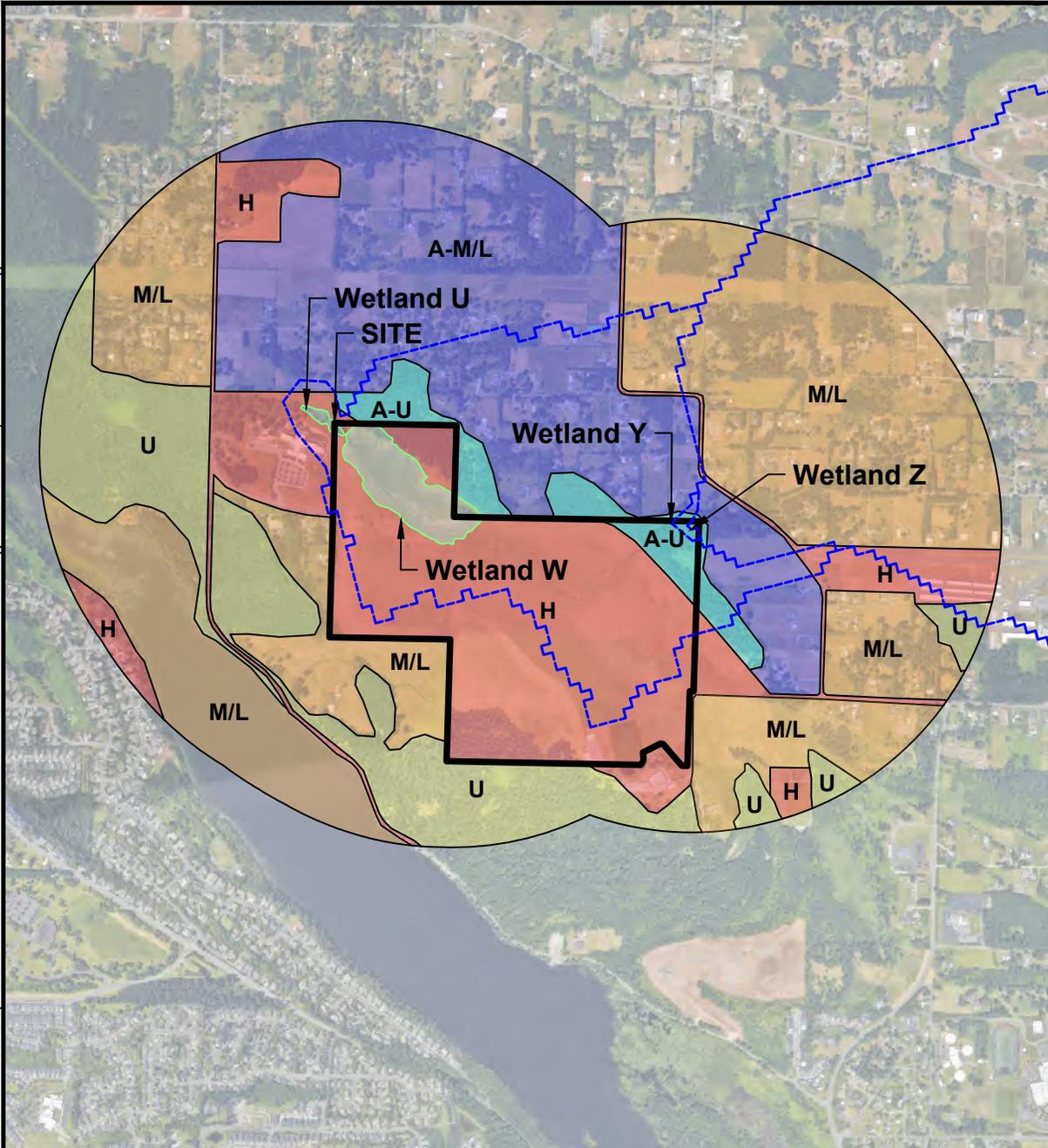


Figure 15  
**WETLANDS U, Y, Z RATING FORM-1 km OFFSET**  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

DATE: 11/17/25  
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**LEGEND:**

- Site Boundary
- Wetland Unit Boundary
- Contributing Basin:

289.2 x Larger than Wetland U  
 120.7 x Larger than Wetland Y  
 15,724.2 x Larger than Wetland Z

0% Ponded Depressions for wetlands U, Y, and Z.

**H2.1 Accessible Habitat**

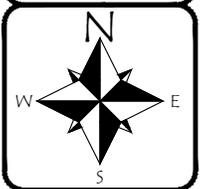
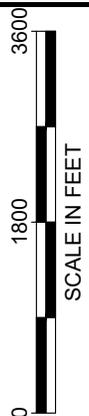
- A-U A-U (3.2%)
- A-M/L A-M/L (24.4%)

**H2.2 Undisturbed Habitat**

- U U (12.9%)
- M/L M/L (36.4%)

**H2.3 Land Use Intensity**

- H H (23.1%)



**H 2.1. Accessible Habitat Equation**

$$\% \text{ [A-U] habitat } \underline{3.2\%} + [(\% \text{ [A-M/L] intensity land uses})/2] \underline{12.2\%} = \underline{15.4\%}$$

**H 2.2. Total Undisturbed Habitat Equation**

$$\% \text{ [A-U]} + \% \text{ [U] habitat } \underline{16.1\%} + [(\% \text{ [A-M/L]} + \% \text{ [M/L] land uses})/2] \underline{30.4\%} = \underline{46.5\%}$$

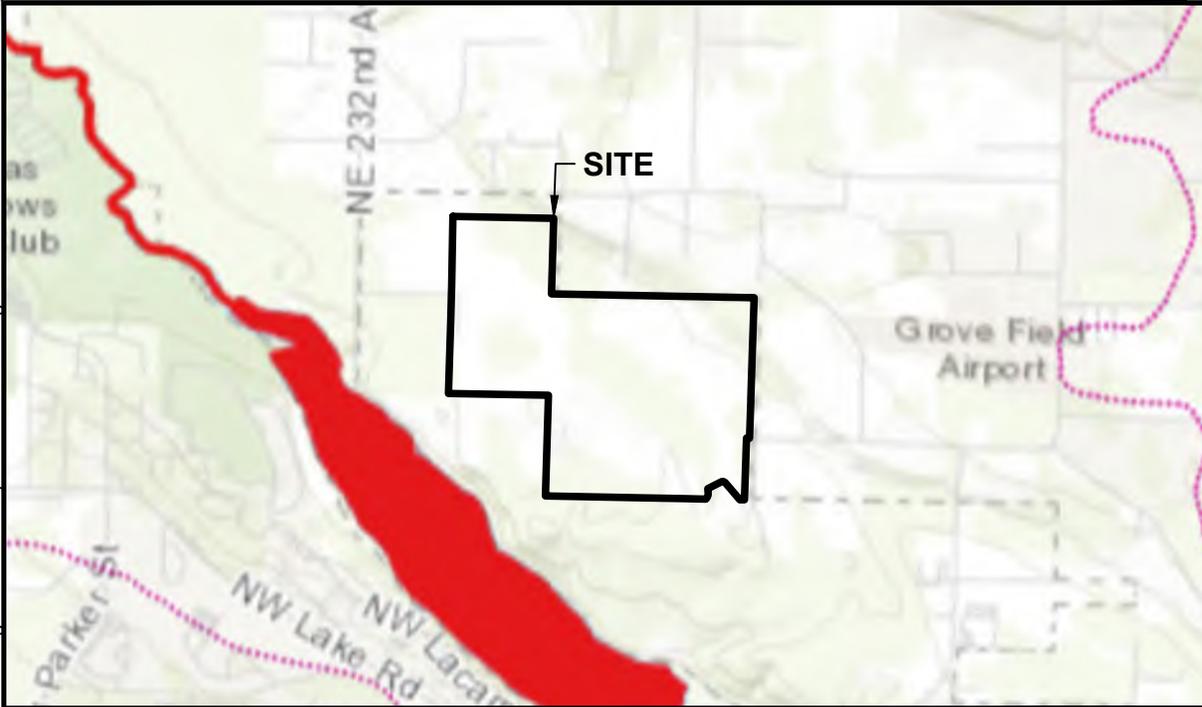


Figure 16  
**WETLAND RATING FORM-303(d) and TMDLs**  
 Lacamas Northshore  
 SunCal Acquisitions, LLC  
 City of Camas, Clark County, WA  
 Section 27, Township 2N, Range 3E, W.M.

**Assessed Waters/Sediment**

**Water**

- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

**Sediment**

- Category 5 - 303d
- Category 4C
- Category 4B
- Category 4A
- Category 2
- Category 1

**Subbasins**

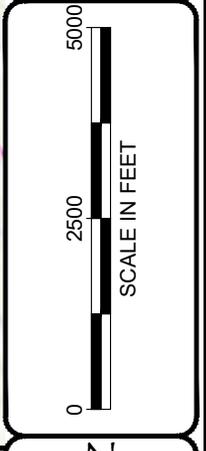
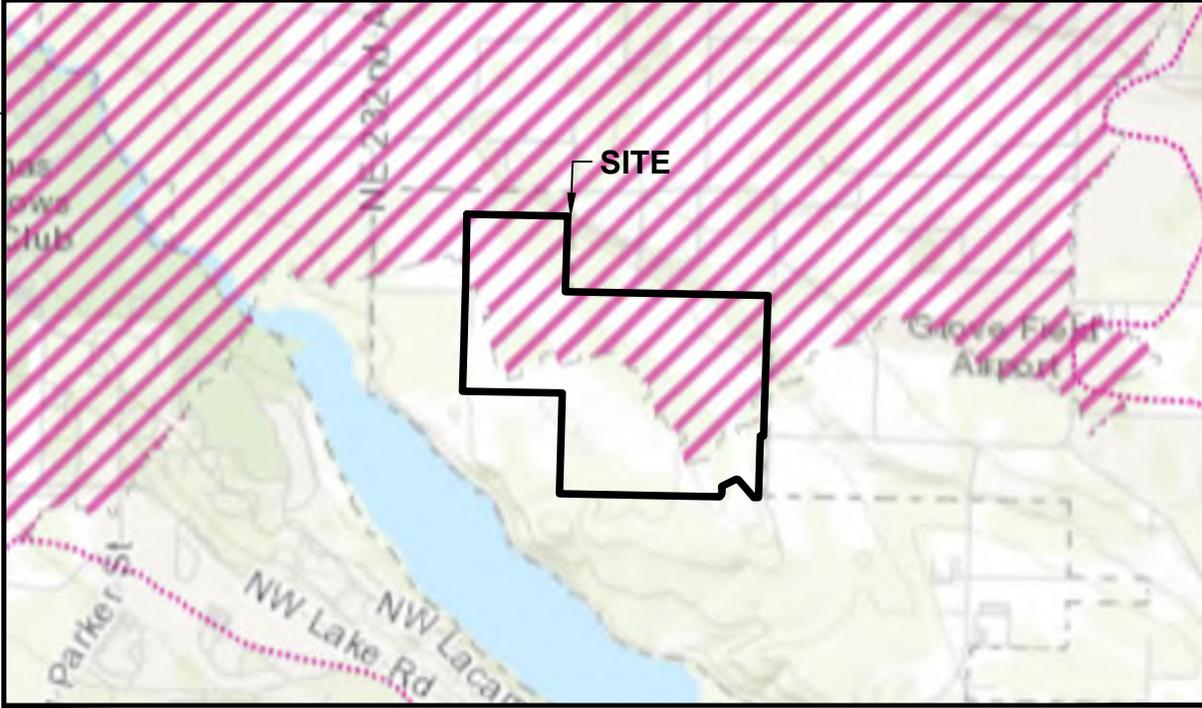
- 12 Digit HUC Boundary

**NOTE(S):**

Map provided on-line by Washington State  
 Department of Ecology at web address:  
<https://fortress.wa.gov/ecy/waterqualityatlas/map.aspx?>

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**WQ Improvement Projects**

- TMDL - Approved
- 4B - Approved
- STI - Approved

- ARP - Approved
- TMDL - In Development
- STI - In Development
- ARP - In Development

**Subbasins**

- 12 Digit HUC Boundary





**Photo 1** was taken from Photo Point 1, located near the south boundary, within Wetland A, looking west across the wetland.



**Photo 2** was taken at the same location as Photo 1, looking north across Wetland A.



**Photo 3** was taken from Photo Point 2, just south of Photo Point 1, at the south boundary. The photo looks north across Wetland A.



**Photo 4** was taken from Photo Point 3, located along the west boundary of Wetland A, looking south across the wetland.



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Longview, WA 98632  
Phone: (360) 578-1371  
Fax: (360) 414-9305

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PRJ. MGR: JB  
PROJ.#: 4426.01

**Photoplate 1**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 5** was taken from Photo Point 4, located at the northwest corner of Wetland A, looking west across the upland pasture.



**Photo 6** was taken from Photo Point 5, located along the east boundary of Wetland A, looking north along the wetland boundary.



**Photo 7** was taken from Photo Point 6, located between Wetlands A and B, looking north toward a fenced off culvert in the pasture.



**Photo 8** was taken from Photo Point 7, located in Wetland B, looking east across the wetland at the edge of the forested community.



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**Photoplate 2**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 9** was taken from Photo Point 8 on the herbaceous bald, located at the south study area boundary, looking east.



**Photo 10** was taken from Photo Point 9, located on the southeast edge of the herbaceous bald, looking east at Wetland C.



**Photo 11** was taken at Photo Point 10, located on the east boundary of Wetland C, looking west across the wetland.



**Photo 12** was taken from Photo Point 11, located in Wetland C, looking east where the wetland continues offsite to the south.



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**Photoplate 3**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 13** was taken from Photo Point 12 , located in Wetland D, looking south across the wetland.



**Photo 14** was taken from Photo Point 13, located between Wetlands A and E, looking west across the upland pasture.



**Photo 15** was taken in the same location as Photo 14, looking east across the upland pasture.



**Photo 16** was taken from Photo Point 14, located south of Wetland E, looking west along the wetland boundary.



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**Photoplate 4**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 17** was taken from Photo Point 15, located at the west study area boundary, looking north toward offsite Wetland T.



**Photo 18** was taken from Photo Point 16, located just north of Photo 17, looking west toward the adjacent property.



**Photo 19** was taken from Photo Point 17, located at the north study area boundary, looking west along the boundary.



**Photo 20** was taken in the same location as Photo 19, looking south toward Wetland V.



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**Photoplate 5**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 21** was taken from Photo Point 18, located north of Wetland V. The photo looks south toward the wetland.



**Photo 22** was taken from Photo Point 19, located within Wetland V, looking west across the wetland and Stream A.



**Photo 23** was taken from Photo Point 20, located east of Wetland V, looking west toward the wetland.



**Photo 24** was taken from Photo Point 21, located east of Wetland U, looking west toward the wetland.



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**Photoplate 6**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 25** was taken from Photo Point 22, located near the east study area boundary, looking west across the pasture.



**Photo 26** was taken from the same location as Photo 25, looking east toward the adjacent property.



**Photo 27** was taken from Photo Point 23, located at the north end of Stream B, looking west across the pasture.



**Photo 28** was taken in the same location as Photo 27, looking south across Stream B.



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**Photoplate 7**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 29** was taken in the same location as Photos 27 and 28, looking east toward the culvert Stream B originates from.



**Photo 30** was taken from Photo Point 24, located within Wetland W, looking east toward NE 252nd Avenue.



**Photo 31** was taken in the same location as Photo 30, looking west toward the existing structures.



**Photo 32** was taken in the same location as Photo 30 and 31, looking north across Wetland W.



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**Photoplate 8**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 33** was taken in the same location as Photos 30, 31, and 32, looking south along the boundary of Wetland W.



**Photo 34** was taken from Photo Point 25, located at the east bank of the onsite manure treatment pond, looking north along the pond's edge.



**Photo 35** was taken from Test Plot 96, looking south toward the manure lagoon. The farm road is in the background just before the berm.



**Photo 36** was taken from Photo Point 27, located where Stream A flows from the forested area into the pasture, looking south.



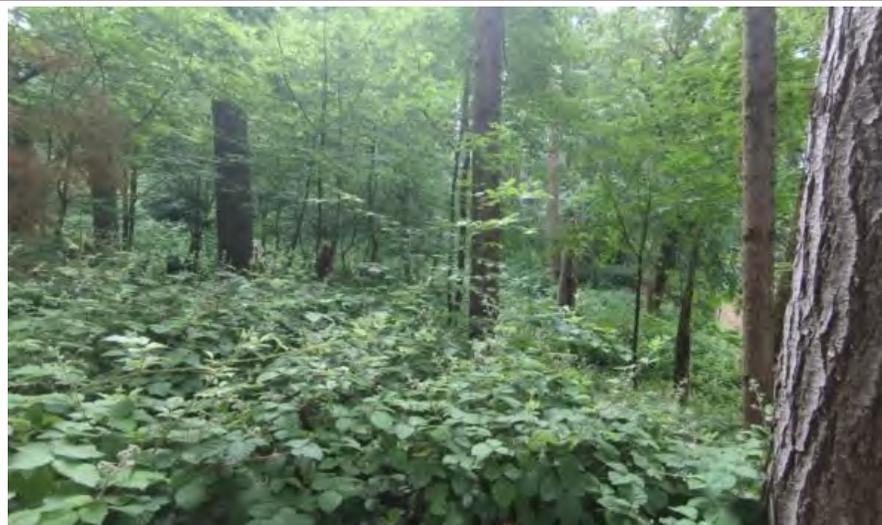
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**Photoplate 9**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 37** was taken in the same location as Photo 36, looking north along Stream A.



**Photo 38** was taken from Photo Point 28, located near the north study area boundary, looking north across the upland forest.



**Photo 39** was taken from Photo Point 29, located near the northeast corner of the study area, looking east across the upland.



**Photo 40** was taken from Photo Point 30, located at the east study area boundary, looking west across the upland.



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**Photoplate 10**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 41** was taken from Photo Point 31, located near the northeast corner of the study area, looking south across the forested upland.



**Photo 42** was taken from Photo Point 32, located in Wetland Y, looking north across the wetland.



**Photo 43** was taken from Photo Point 33, located at the northeast study corner, looking west across an area dominated by blackberry.



**Photo 44** was taken in the same location as Photo 43, looking north toward the area where Stream A briefly crosses offsite to the north.



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**Photoplate 11**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington



**Photo 45** was taken from Photo Point 34, located at the northeast corner of the study area, looking west across Stream A.



**Photo 46** was taken in the same location as Photo point 45, looking east toward the location that Stream A enters the study area.



**Photo 47** was taken at Photo Point 35, located within Wetland Z, looking west across the wetland.



**Photo 48** was taken in the same location as Photo 47, looking north across the Wetland.



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**Photoplate 12**  
Lacamas Northshore  
SunCal Acquisitions, LLC  
Camas, Washington

## **APPENDIX A**

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### **ROUTINE DETERMINATION METHOD AND PLANT INDICATOR RATING DEFINITIONS**

### *ROUTINE DETERMINATION METHOD*

The Routine Determination Method is defined according to the U.S. Army Corps of Engineers' 1987 *Wetland Delineation Manual* and the *Regional Supplement to the Corps of Engineers' Wetland Delineation Manual* (Environmental Laboratory 1987); *Western Mountains, Valleys, and Coast Region (Version 2.0)* (Corps 2010). The Routine Determination Method examines three parameters – vegetation, soils, and hydrology – to determine if wetlands exist in a given area. Hydrology is critical in determining what is a wetland, but is often difficult to assess because hydrologic conditions can change periodically (hourly, daily, or seasonally). Consequently, it is necessary to determine if hydrophytic vegetation and hydric soils are present, which would indicate that water is present for a long enough duration to support a wetland plant community. By definition, wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

### *VEGETATION INDICATOR STATUS*

The indicator status, following the scientific names of plant species, indicates the likelihood of the species to be found in wetlands according to the *National Wetland Plant List Indicator Rating Definitions* (Corps 2012). Listed from most likely to least likely to be found in wetlands, the indicator status categories are:

- **OBL** (obligate wetland) - occur almost always under natural conditions in wetlands.
- **FACW** (facultative wetland) - usually occur in wetlands, but occasionally found in non-wetlands.
- **FAC** (facultative) - equally likely to occur in wetlands or non-wetlands.
- **FACU** (facultative upland) - usually occur in non-wetlands, but occasionally found in wetlands.
- **UPL** (obligate upland) - occur almost always under natural conditions in non-wetlands.
- **NI** (no indicator) - insufficient data to assign to an indicator category.

## APPENDIX B

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### WETLAND DETERMINATION DATA FORMS

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 1  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62157 Long: -122.419 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 1 was conducted in a forested area near the southern boundary.					

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>																	
1. <u><i>Acer macrophyllum</i></u>	<u>20</u>	<u>yes</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)																
2. <u><i>Pseudotsuga menziesii</i></u>	<u>15</u>	<u>yes</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)																
3. <u><i>Thuja plicata</i></u>	<u>8</u>	<u>no</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>33</u> (A/B)																
4. _____	_____	_____	_____																		
50% = <u>21.5</u> , 20% = <u>8.6</u>	<u>43</u>	= Total Cover																			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)																					
1. _____	_____	_____	_____																		
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
5. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)																					
1. <u><i>Agrostis sp.*</i></u>	<u>50</u>	<u>yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>		Total % Cover of:	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																				
OBL species _____	x1 = _____																				
FACW species _____	x2 = _____																				
FAC species _____	x3 = _____																				
FACU species _____	x4 = _____																				
UPL species _____	x5 = _____																				
Column Totals: _____ (A)	_____ (B)																				
Prevalence Index = B/A = _____																					
2. <u><i>Ranunculus repens</i></u>	<u>15</u>	<u>no</u>	<u>FAC</u>																		
3. <u><i>Lapsana communis</i></u>	<u>10</u>	<u>no</u>	<u>FACU</u>																		
4. <u><i>Lysichiton americanus</i></u>	<u>8</u>	<u>no</u>	<u>OBL</u>																		
5. <u><i>Cirsium arvense</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>																		
6. <u><i>Arctium minus</i></u>	<u>5</u>	<u>no</u>	<u>UPL</u>																		
7. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>46.5</u> , 20% = <u>18.6</u>	<u>93</u>	= Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: _____)																					
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b>																	
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>															
% Bare Ground in Herb Stratum <u>Z</u>																					

Remarks: The hydrophytic vegetation criterion was not met because there is less than 50 percent dominance by FAC species.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/2	100	_____	_____	_____	_____	loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soils Present?</b>		
Type: _____						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Depth (inches): _____								
Remarks: The soil profile did not meet any hydric soil indicators due to a lack of redoximorphic features.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water-Stained Leaves (B9)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
			<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> FAC-Neutral Test (D5)
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	<input type="checkbox"/> Frost-Heave Hummocks (D7)
			<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>		
			<input type="checkbox"/> Other (Explain in Remarks)		
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Secondary indicator Geomorphic Position (D2) was present. Wetland Hydrology was not met because two or more secondary indicators are required.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 2  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62154 Long: -122.421 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 2 was conducted near the southern boundary at the toe of the slope outside of Wetland A.					

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u><i>Acer macrophyllum</i></u>	30	yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)		
2. <u><i>Pseudotsuga menziesii</i></u>	15	yes	FACU	Total Number of Dominant Species Across All Strata:	6 (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	33 (A/B)		
4. _____	_____	_____	_____				
50% = <u>22.5</u> , 20% = <u>9</u>	45	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
1. <u><i>Acer circinatum</i></u>	15	yes	FAC				
2. <u><i>Corylus cornuta</i></u>	5	no	FACU				
3. <u><i>Ilex aquifolium</i></u>	5	no	FACU				
4. <u><i>Oemleria cerasiformis</i></u>	2	no	FACU				
5. <u><i>Rubus armeniacus</i></u>	2	no	FAC				
50% = <u>14.5</u> , 20% = <u>5.8</u>	29	= Total Cover					
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u><i>Geranium lucidum</i></u>	5	yes	UPL				
2. <u><i>Athyrium cycloosorum</i></u>	2	yes	FAC				
3. <u><i>Circaea canadensis</i></u>	2	yes	FACU				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>4.5</u> , 20% = <u>1.8</u>	9	= Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>91</u>							

Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 3  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62158 Long: -122.421 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 3 was conducted near the southern boundary in Wetland A.					

### VEGETATION – Use scientific names of plants

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				
1. <u>Ranunculus repens</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Lysichiton americanus</u>	<u>20</u>	<u>yes</u>	<u>OBL</u>	
3. <u>Oenanthe sarmentosa</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>	
4. <u>Agrostis sp.*</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
5. <u>Athyrium cyclosozum</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
6. <u>Geranium robertianum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>	
7. <u>Urtica dioica</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
8. <u>Equisetum arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>40</u> , 20% = <u>8</u>	<u>80</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>20</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and OBL species. *Assumed FAC				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 4  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62264 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 4 was conducted west of Wetland A in the open pasture.					

## VEGETATION – Use scientific names of plants

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>25</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Agrostis sp.*</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Lotus corniculatus</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
4. <u>Dactylis glomerata</u>	<u>15</u>	<u>no</u>	<u>FACU</u>	
5. <u>Juncus effusus</u>	<u>10</u>	<u>no</u>	<u>FACW</u>	
6. <u>Festuca rubra</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species. *Assumed FAC				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/2	100					silty clay	No redox features
8-16	10YR 3/1	95	10YR 5/8	5	C	M	silty clay	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: The soil profile matches the description for indicator F6, Redox Dark Surface, because at least 4 of the upper 12 inches has a value less than 4 and chroma less than 3 and at least 5% distinct redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)		<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Frost-Heave Hummocks (D7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 5  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62273 Long: -122.421 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 5 was conducted in Wetland A in the open pasture.					

## VEGETATION – Use scientific names of plants

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Holcus lanatus</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Phalaris arundinacea</u>	<u>15</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Juncus effusus</u>	<u>15</u>	<u>yes</u>	<u>FACW</u>	
4. <u>Dactylis glomerata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>	
5. <u>Carex stipata</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
6. <u>Festuca rubra</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
7. <u>Lotus corniculatus</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
8. <u>Lysichiton americanus</u>	<u>5</u>	<u>no</u>	<u>OBL</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10YR 3/3	100					clay loam	No redox features
6-16	10YR 2/1	95	10YR 6/8	5	C	M	clay loam	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/>	Histosol (A1)	<input type="checkbox"/>	Sandy Redox (S5)	<input type="checkbox"/>	2 cm Muck (A10)
<input type="checkbox"/>	Histic Epipedon (A2)	<input type="checkbox"/>	Stripped Matrix (S6)	<input type="checkbox"/>	Red Parent Material (TF2)
<input type="checkbox"/>	Black Histic (A3)	<input type="checkbox"/>	Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/>	Very Shallow Dark Surface (TF12)
<input type="checkbox"/>	Hydrogen Sulfide (A4)	<input type="checkbox"/>	Loamy Gleyed Matrix (F2)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Depleted Below Dark Surface (A11)	<input type="checkbox"/>	Depleted Matrix (F3)		
<input type="checkbox"/>	Thick Dark Surface (A12)	<input checked="" type="checkbox"/>	Redox Dark Surface (F6)		
<input type="checkbox"/>	Sandy Mucky Mineral (S1)	<input type="checkbox"/>	Depleted Dark Surface (F7)		
<input type="checkbox"/>	Sandy Gleyed Matrix (S4)	<input type="checkbox"/>	Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Remarks: The soil profile matches the description for indicator F6, Redox Dark Surface, because at least 4 of the upper 12 inches has a value less than 4 and chroma less than 3 and at least 5 percent distinct redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/>	Surface Water (A1)	<input type="checkbox"/>	Water-Stained Leaves (B9)
<input type="checkbox"/>	High Water Table (A2)	<input type="checkbox"/>	(except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/>	Saturation (A3)	<input type="checkbox"/>	Salt Crust (B11)
<input type="checkbox"/>	Water Marks (B1)	<input type="checkbox"/>	Aquatic Invertebrates (B13)
<input type="checkbox"/>	Sediment Deposits (B2)	<input type="checkbox"/>	Hydrogen Sulfide Odor (C1)
<input type="checkbox"/>	Drift Deposits (B3)	<input checked="" type="checkbox"/>	Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/>	Algal Mat or Crust (B4)	<input type="checkbox"/>	Presence of Reduced Iron (C4)
<input type="checkbox"/>	Iron Deposits (B5)	<input type="checkbox"/>	Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/>	Surface Soil Cracks (B6)	<input type="checkbox"/>	Stunted or Stresses Plants (D1) (LRR A)
<input type="checkbox"/>	Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/>	Other (Explain in Remarks)
<input type="checkbox"/>	Sparsely Vegetated Concave Surface (B8)		

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The presence of oxidized rhizospheres within the upper 12 inches of the soil profile is a primary indicator of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 6  
 Investigator(s): AJR, SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62313 Long: -122.42 Datum: NAD83  
 Soil Map Unit Name: Sr- Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 6 was conducted in uplands just north of Wetland A.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:                      Multiply by:	
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Holcus lanatus</u>	33	yes	FAC	Prevalence Index = B/A = _____	
2. <u>Phalaris arundinacea</u>	33	yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
3. <u>Festuca rubra</u>	33	yes	FAC		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>49.5</u> , 20% = <u>19.8</u>	99	= Total Cover			
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum 1					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.					

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	<u>10YR 3/2</u>	<u>100</u>	_____	_____	_____	_____	<u>silt loam</u>	<u>No redox features</u>
10-16	<u>10YR 2/1</u>	<u>99</u>	<u>10YR 5/8</u>	<u>1</u>	<u>C</u>	<u>M</u>	<u>silt loam</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Type: _____								
Depth (inches): _____								
Remarks:      The soil profile did not meet any hydric soil indicators due to a lack of redoximorphic features in the surface layer and the subsurface layer not having a high enough percentage of redoximorphic features.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>		<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					<input type="checkbox"/> Shallow Aquitard (D3)
					<input type="checkbox"/> FAC-Neutral Test (D5)
					<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>
					<input type="checkbox"/> Frost-Heave Hummocks (D7)
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:      Hydrology was not present during the field visit and there was no evidence of wetland hydrology.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal State: WA Sampling Point: TP 7  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62338 Long: -122.42 Datum: NAD83  
 Soil Map Unit Name: Sr- Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 7 was conducted in an old ditch/ fence line.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Festuca rubra</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Holcus lanatus</u>	<u>15</u>	<u>no</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
3. <u>Dactylis glomerata</u>	<u>15</u>	<u>no</u>	<u>FACU</u>		
4. <u>Juncus effusus</u>	<u>10</u>	<u>no</u>	<u>FACW</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover			
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					



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

Project Site: Northshore Lacamas City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal State: WA Sampling Point: TP 8  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62282 Long: -122.419 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: <b>The study area is located on a dairy farm in Camas Washington on 252<sup>nd</sup> Ave. Most of the property is open pasture with forested areas along the north and south boundaries. Twelve wetlands and two streams were identified onsite. Test Plot 8 was conducted in the open pasture east of Wetland A.</b>			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">1 (A)</span> Total Number of Dominant Species Across All Strata: <span style="float: right;">1 (B)</span> Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100 (A/B)</span>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Holcus lanatus</u>	85	yes	FAC	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width: 15%; text-align: center;">Yes</td> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 10%; text-align: center;">No</td> <td style="width: 35%; text-align: center;"><input type="checkbox"/></td> </tr> </table>	<b>Hydrophytic Vegetation Present?</b>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
<b>Hydrophytic Vegetation Present?</b>	Yes	<input checked="" type="checkbox"/>	No		<input type="checkbox"/>															
2. <u>Phalaris arundinacea</u>	5	no	FACW																	
3. <u>Festuca rubra</u>	5	no	FAC																	
4. <u>Cirsium arvense</u>	5	no	FAC																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = 50, 20% = 20	100	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width: 15%; text-align: center;">Yes</td> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 10%; text-align: center;">No</td> <td style="width: 35%; text-align: center;"><input type="checkbox"/></td> </tr> </table>	<b>Hydrophytic Vegetation Present?</b>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
<b>Hydrophytic Vegetation Present?</b>	Yes	<input checked="" type="checkbox"/>	No		<input type="checkbox"/>															
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum 0																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 9  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62273 Long: -122.419 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 9 was conducted near the eastern boundary of Wetland A.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>		
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)	
4. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>		
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
2. _____	_____	_____	_____	OBL species _____	x1 = _____	
3. _____	_____	_____	_____	FACW species _____	x2 = _____	
4. _____	_____	_____	_____	FAC species _____	x3 = _____	
5. _____	_____	_____	_____	FACU species _____	x4 = _____	
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____	
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)	
1. <u>Phalaris arundinacea</u>	35	yes	FACW	Prevalence Index = B/A = _____		
2. <u>Lysichiton americanus</u>	35	yes	OBL			
3. <u>Carex stipata</u>	20	yes	OBL			
4. _____	_____	_____	_____			
5. _____	_____	_____	_____			
6. _____	_____	_____	_____			
7. _____	_____	_____	_____			
8. _____	_____	_____	_____			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = <u>45</u> , 20% = <u>18</u>	90	= Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>		
1. _____	_____	_____	_____			<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____			<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
% Bare Ground in Herb Stratum <u>10</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>		
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
				<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW and OBL species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 10  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62294 Long: -122.424 Datum: NAD83  
 Soil Map Unit Name: CvA-Cove silty clay loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 10 was conducted at the west boundary of the study area in a slight depression near a culvert outlet.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)		
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)		
4. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:			
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:		
2. _____	_____	_____	_____	OBL species _____	x1 = _____		
3. _____	_____	_____	_____	FACW species _____	x2 = _____		
4. _____	_____	_____	_____	FAC species _____	x3 = _____		
5. _____	_____	_____	_____	FACU species _____	x4 = _____		
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____		
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)		
1. <u>Agrostis sp*</u>	32	yes	FAC	Prevalence Index = B/A = _____			
2. <u>Ranunculus repens</u>	20	yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
3. <u>Lolium perenne</u>	20	yes	FAC				
4. <u>Cirsium arvense</u>	10	no	FAC				
5. <u>Lotus corniculatus</u>	10	no	FAC				
6. <u>Rubus ursinus</u>	5	no	FACU				
7. <u>Phalaris arundinacea</u>	3	no	FACW				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = 50, 20% = 20	100	= Total Cover					
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b>			
1. _____	_____	_____	_____			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum _____							
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC							



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 11  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6229 Long: -122.424 Datum: NAD83  
 Soil Map Unit Name: CvA-Cove silty clay loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 11 was conducted at the west boundary of the study area.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u>Fraxinus latifolia</u>	<u>30</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>5</u> (A)		
2. <u>Alnus rubra</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)		
4. _____	_____	_____	_____				
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u>	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
1. <u>Rubus armeniacus</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>				
2. _____	_____	_____	_____				
3. _____	_____	_____	_____				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
50% = <u>5</u> , 20% = <u>2</u>	<u>10</u>	= Total Cover					
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>				
2. <u>Ranunculus repens</u>	<u>35</u>	<u>yes</u>	<u>FAC</u>				
3. <u>Lysichiton americanus</u>	<u>5</u>	<u>no</u>	<u>OBL</u>				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>0</u>							

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC, FACW, and OBL species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 12  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62291 Long: -122.423 Datum: NAD83  
 Soil Map Unit Name: CvA-Cove silty clay loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 12 was conducted near the west boundary of the study area in Wetland B.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																	
1. <u>Fraxinus latifolia</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>5</u> (A)																
2. <u>Alnus rubra</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)																
4. _____	_____	_____	_____																		
50% = <u>40</u> , 20% = <u>16</u>	<u>80</u>	= Total Cover																			
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																					
1. <u>Rubus armeniacus</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>		<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																				
OBL species _____	x1 = _____																				
FACW species _____	x2 = _____																				
FAC species _____	x3 = _____																				
FACU species _____	x4 = _____																				
UPL species _____	x5 = _____																				
Column Totals: _____ (A)	_____ (B)																				
Prevalence Index = B/A = _____																					
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
5. _____	_____	_____	_____																		
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover																			
<u>Herb Stratum (Plot size: 10' diameter)</u>																					
1. <u>Agrostis sp.*</u>	<u>55</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
2. <u>Lysichiton americanus</u>	<u>25</u>	<u>yes</u>	<u>OBL</u>																		
3. <u>Ranunculus repens</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																		
4. <u>Phalaris arundinacea</u>	<u>5</u>	<u>no</u>	<u>FACW</u>																		
5. _____	_____	_____	_____																		
6. _____	_____	_____	_____																		
7. _____	_____	_____	_____																		
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																			
<u>Woody Vine Stratum (Plot size: _____)</u>																					
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">No</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>												
Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>																		
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
% Bare Ground in Herb Stratum <u>0</u>																					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC, FACW, and OBL species. *Assumed FAC																					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 13  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62311 Long: -122.423 Datum: NAD83  
 Soil Map Unit Name: CvA-Cove silty clay loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 13 was conducted upslope of Test Plot 12 outside of Wetland B.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	3 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Juncus effusus</u>	45	yes	FACW	Prevalence Index = B/A = _____	
2. <u>Phalaris arundinacea</u>	30	yes	FACW		
3. <u>Festuca rubra</u>	25	yes	FAC		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = 50, 20% = 20	100	= Total Cover			
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>	
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum 0					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 14  
 Investigator(s): AJ and SH Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62204 Long: -122.423 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 14 was conducted in Wetland D					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																	
1. <u>Fraxinus latifolia</u>	<u>55</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)																
4. _____	_____	_____	_____																		
50% = <u>27.5</u> , 20% = <u>11</u>	<u>55</u>	= Total Cover																			
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																					
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>		<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																				
OBL species _____	x1 = _____																				
FACW species _____	x2 = _____																				
FAC species _____	x3 = _____																				
FACU species _____	x4 = _____																				
UPL species _____	x5 = _____																				
Column Totals: _____ (A)	_____ (B)																				
Prevalence Index = B/A = _____																					
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
5. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
<u>Herb Stratum (Plot size: 10' diameter)</u>																					
1. <u>Phalaris arundinacea</u>	<u>55</u>	<u>yes</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
2. <u>Lysichiton americanus</u>	<u>25</u>	<u>yes</u>	<u>OBL</u>																		
3. <u>Agrostis sp *</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																		
4. _____	_____	_____	_____																		
5. _____	_____	_____	_____																		
6. _____	_____	_____	_____																		
7. _____	_____	_____	_____																		
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																			
<u>Woody Vine Stratum (Plot size: _____)</u>																					
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">No</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>			Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
	Yes	<input checked="" type="checkbox"/>	No			<input type="checkbox"/>															
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
% Bare Ground in Herb Stratum <u>0</u>																					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC, FACW, and OBL species. *Assumed FAC																					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 15  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62149 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: PEM1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 15 was conducted near the south boundary in Wetland C.					

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Ludwigia palustris</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>																	
2. <u>Callitriche stagnalis</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u>	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>80</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by OBL species. *Assumed FAC																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 16  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62149 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: PEM1C  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 16 was conducted in uplands near the southern boundary of Wetland C.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u><i>Pseudotsuqa menziesii</i></u>	<u>30</u>	<u>yes</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)		
2. <u><i>Acer macrophyllum</i></u>	<u>20</u>	<u>yes</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata:	<u>6</u> (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)		
4. _____	_____	_____	_____				
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
1. <u><i>Ilex aquifolium</i></u>	<u>15</u>	<u>yes</u>	<u>FACU</u>				
2. <u><i>Corylus cornuta</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>				
3. <u><i>Symphoricarpos albus</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>				
4. <u><i>Rubus armeniacus</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
5. <u><i>Oemleria cerasiformis</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>				
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u>	= Total Cover					
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u><i>Geranium lucidum</i></u>	<u>40</u>	<u>yes</u>	<u>UPL</u>				
2. <u><i>Geranium robertianum</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>				
3. _____	_____	_____	_____				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u>	= Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>55</u>							

Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/3	100	_____	_____	_____	_____	loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soils Present?</b>		
Type: _____						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Depth (inches): _____								
Remarks: The soil profile did not meet any hydric soils indicators due to high matrix color.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Geomorphic Position (D2)
			<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Shallow Aquitard (D3)
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> FAC-Neutral Test (D5)
			<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>
			<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 17  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.6217 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 17 was conducted in Wetland C.					

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Polygonum punctatum</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>	
2. <u>Ludwigia palustris</u>	<u>5</u>	<u>yes</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>85</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by OBL species.				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 18  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62172 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 18 was conducted in the upland west of Wetland C.					

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>
1. <u>Fraxinus latifolia</u>	<u>15</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = <u>15</u> , 20% = <u>6</u>	<u>30</u>	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				
1. <u>Fraxinus latifolia</u>	<u>7</u>	<u>yes</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. <u>Rubus armeniacus</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = <u>6</u> , 20% = <u>2.4</u>	<u>12</u>	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				
1. <u>Plantago major</u>	<u>2</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>1</u> , 20% = <u>0.4</u>	<u>2</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>98</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 19  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62207 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: Test Plot 19 was conducted in Wetland D. Vegetation is problematic due to heavy cattle grazing. Because indicators for the presence of hydric soils and hydrophytic vegetation are present, this test plot is located within wetlands.			

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <u>Total % Cover of:</u> <span style="float: right;"><u>Multiply by:</u></span> OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input checked="" type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>100</u>				

Remarks: Due to heavy use of area by cows, there was no vegetation at this test plot, only leaf litter on bareground.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 2/1	100	_____	_____	_____	_____	silt loam	See remarks below
12-18	10YR 4/2	90	10YR 4/6	10	C	M	silt loam	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:    Soils disturbed due to heavy use by cattle. This soil profile met hydric soil indicator A12 due to the presence of a thick dark surface over a depleted matrix that begins at 12 inches below the soil surface.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input checked="" type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    Algal Mat or Crust (B4) was present and is a primary indicator of wetland hydrology. Water Stained Leaves (B9) were also present.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 20  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62204 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 20 was conducted in the upland east of Wetland D.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u>Acer macrophyllum</u>	85	yes	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)		
2. <u>Pseudotsuga menziesii</u>	5	no	FACU	Total Number of Dominant Species Across All Strata:	7 (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	29 (A/B)		
4. _____	_____	_____	_____				
50% = 45, 20% = 18	90	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
1. <u>Symphoricarpos albus</u>	10	yes	FACU				
2. _____	_____	_____	_____				
3. _____	_____	_____	_____				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
50% = 5, 20% = 2	10	= Total Cover					
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u>Poa sp.*</u>	5	yes	FAC				
2. <u>Geranium robertianum</u>	5	yes	FACU				
3. <u>Maianthemum dilatatum</u>	5	yes	FAC				
4. <u>Geranium lucidum</u>	5	yes	FACU				
5. <u>Claytonia virginica</u>	5	yes	FACU				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = 12.5, 20% = 5	25	= Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>75</u>							
Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC, FACW, and OBL species.							

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 3/2	100	_____	_____	_____	_____	silt loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b>			
Type: <u>rock refusal</u>			
Depth (inches): <u>9</u>			
		<b>Hydric Soils Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks: This soil profile did not meet any hydric soils indicators due to high matrix colors.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 21  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62213 Long: -122.423 Datum: NAD83  
 Soil Map Unit Name: LIB- Lauren very gravelly loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 21 was conducted in a concave depression west of Wetland D.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet																
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
1. <u>Fraxinus latifolia</u>	<u>30</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Populus balsamifera</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Thuja plicata</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u>	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. <u>Acer circinatum</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>100</u>																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/2	100	_____	_____	_____	_____	silt loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>						<b>Hydric Soils Present?</b>		
Type: _____						Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Depth (inches): _____								
Remarks: This soil profile did not meet any hydric soils indicators due to a lack of redoximorphic features.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> FAC-Neutral Test (D5)
			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	<input type="checkbox"/> Frost-Heave Hummocks (D7)
			<input type="checkbox"/> Presence of Reduced Iron (C4)		
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		
			<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>		
			<input type="checkbox"/> Other (Explain in Remarks)		
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b>		
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Secondary Indicator Water-Stained Leaves (B9) were present at this test plot. Wetland Hydrology was not met due to only one secondary indicator being met.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 22  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62283 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: <b>Test Plot 22 was conducted west of Wetland A.</b>					

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)																				
1. <u><i>Anthoxanthum odoratum</i></u>	<u>30</u>	<u>yes</u>	<u>FACU</u>																	
2. <u><i>Agrostis sp.*</i></u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
3. <u><i>Holcus lanatus</i></u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
4. <u><i>Hypochaeris radicata</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
5. <u><i>Lotus corniculatus</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
6. <u><i>Juncus effusus</i></u>	<u>2</u>	<u>no</u>	<u>FACW</u>																	
7. <u><i>Cirsium arvense</i></u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>47</u> , 20% = <u>18.8</u>	<u>94</u>	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>6</u>																				
<table style="width: 100%;"> <tr> <td style="width: 30%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width: 10%;">Yes <input checked="" type="checkbox"/></td> <td style="width: 10%;">No <input type="checkbox"/></td> </tr> </table>				<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>														
<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>																		

Remarks: **\*Assumed FAC. The hydrophytic criterion is met because more than 50% of dominant species are FAC or wetter.**

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/2	100	_____	_____	_____	_____	silt loam	No redox features
8-16	7.5YR 3/1	100	_____	_____	_____	_____	silt loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b>			
Type: _____			
Depth (inches): _____			
		<b>Hydric Soils Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks: This soil profile did not meet any hydric soils indicators due to a lack of redoximorphic features.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> <b>(MLRA 1, 2, 4A, and 4B)</b>			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
			<b>Wetland Hydrology Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 23  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62333 Long: -122.422 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 23 was conducted northwest of Wetland A in an open pasture.			

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">1 (A)</span> Total Number of Dominant Species Across All Strata: <span style="float: right;">1 (B)</span> Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100 (A/B)</span>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Phalaris arundinacea</u>	100	yes	FACW																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	100	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">No</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
	Yes	<input checked="" type="checkbox"/>	No		<input type="checkbox"/>															
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 2/1	100	_____	_____	_____	_____	silt loam	No redox features
5-16	10YR 4/2	30	_____	_____	_____	_____	si-cl loam	No redox features
_____	10YR2/1	70	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	si-silt
_____	_____	_____	_____	_____	_____	_____	_____	cl-clay

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: This soil profile did not meet any hydric soils indicators due to a lack of redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Shallow Aquitard (D3)
			<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
				<input type="checkbox"/> Frost-Heave Hummocks (D7)	

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 24  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62352 Long: -122.421 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 24 was conducted northwest of Wetland A in an open pasture.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">1 (A)</span>  Total Number of Dominant Species Across All Strata: <span style="float: right;">1 (B)</span>  Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="float: right;">100 (A/B)</span>																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Phalaris arundinacea</u>	100	yes	FACW																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = 50, 20% = 20	100	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b>																
2. _____	_____	_____	_____		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>															
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum 0																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/2	100	_____	_____	_____	_____	silt loam	No redox features
8-16	7.5YR 3/1	100	_____	_____	_____	_____	si-cl loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	si-silt
_____	_____	_____	_____	_____	_____	_____	_____	cl-clay

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: This soil profile did not meet any hydric soils indicators due to a lack of redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?      Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 25  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62394 Long: -122.421 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 25 was conducted northwest of Wetland A in an open pasture.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>75</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Holcus lanatus</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Lotus corniculatus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	10YR 2/2	100	_____	_____	_____	_____	silt loam	No redox features
9-16	7.5YR 3/1	100	_____	_____	_____	_____	silt loam	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	--

Remarks: This soil profile did not meet any hydric soils indicators due to a lack of redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> (MLRA 1, 2, 4A, and 4B)			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Hydrology was not present during the field visit and there was no evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 26  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.62473 Long: -122.423 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 26 was conducted in an open pasture between Wetlands A and E.			

## VEGETATION – Use scientific names of plants

Stratum	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30'</u> diameter)				<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
2. _____	_____	_____	_____		Total Number of Dominant Species Across All Strata: 1 (B)
3. _____	_____	_____	_____		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____		<b>Total % Cover of:</b>
2. _____	_____	_____	_____		<b>Multiply by:</b>
3. _____	_____	_____	_____		OBL species _____ x1 = _____
4. _____	_____	_____	_____		FACW species _____ x2 = _____
5. _____	_____	_____	_____		FAC species _____ x3 = _____
50% = _____, 20% = _____	_____	= Total Cover		FACU species _____ x4 = _____	
<b>Herb Stratum</b> (Plot size: <u>10'</u> diameter)					
1. <u>Phalaris arundinacea</u>	<u>100</u>	<u>yes</u>	<u>FACW</u>	UPL species _____ x5 = _____	
2. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
3. _____	_____	_____	_____	Prevalence Index = B/A = _____	
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover			
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>	
1. _____	_____	_____	_____		<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
% Bare Ground in Herb Stratum <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species.					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 27  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.6256775 Long: -122.4249535 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Test Plot 27 was conducted in Wetland E.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)																				
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u><i>Alopecurus aequalis</i></u>	<u>90</u>	<u>yes</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>45</u> , 20% = <u>18</u>	<u>90</u>	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>10</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by OBL species.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 28  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.6260585 Long: -122.424981 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 28 was conducted northeast of Wetland E.					

## VEGETATION – Use scientific names of plants

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>67</u> (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Agrostis sp.</u>	<u>33</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Dactylis glomerata</u>	<u>30</u>	<u>yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b>	
3. <u>Holcus lanatus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>		
4. <u>Cirsium arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>		
5. <u>Rumex crispus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
8. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
9. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
10. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
11. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<u>Woody Vine Stratum</u> (Plot size: _____)				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 29  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.6260116 Long: -122.4250601 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 29 was conducted in Wetland E.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Alopecurus aequalis</u>	<u>30</u>	<u>yes</u>	<u>OBL</u>																	
2. <u>Lolium perenne</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Agrostis sp.*</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
4. <u>Trifolium repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>47.5</u> , 20% = <u>19</u>	<u>95</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>5</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and OBL species. *Assumed FAC.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 30  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.626187 Long: -122.4257161 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 30 was conducted northwest of Wetland E.			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>67</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Dactylis glomerata</u>	<u>30</u>	<u>yes</u>	<u>FACU</u>																	
2. <u>Holcus lanatus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Agrostis sp.*</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
4. <u>Geranium lucidum</u>	<u>5</u>	<u>no</u>	<u>UPL</u>																	
5. <u>Cirsium arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 31  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.6261662 Long: -122.4256561 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 31 was conducted within Wetland E.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	67 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
<b>Herb Stratum (Plot size: 10' diameter)</b>				Column Totals: _____ (A)	_____ (B)
1. <u>Agrostis sp.*</u>	45	yes	FAC	Prevalence Index = B/A = _____	
2. <u>Dactylis glomerata</u>	25	yes	FACU		
3. <u>Schedonorus arundinaceus</u>	20	yes	FAC		
4. <u>Geranium lucidum</u>	5	no	NI		
5. <u>Cirsium arvense</u>	5	no	FAC		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = 50, 20% = 20	100	= Total Cover			
<b>Woody Vine Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Indicators:</b>	
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum 0				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. \*Assumed FAC.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 32  
 Investigator(s): SH and JC Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-1%  
 Subregion (LRR): MLRA 2 Lat: 45.6255651 Long: -122.4250924 Datum: NAD83  
 Soil Map Unit Name: SR- Semiahoo muck NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks: Test Plot 32 was conducted southwest of Wetland E.					

**VEGETATION – Use scientific names of plants**

Stratum (Plot size: _____ diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
1. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>2</u> (B)
2. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>
1. _____	_____	_____	_____	<u>Total % Cover of:</u> <span style="float: right;"><u>Multiply by:</u></span>
2. _____	_____	_____	_____	OBL species _____ x1 = _____
3. _____	_____	_____	_____	FACW species _____ x2 = _____
4. _____	_____	_____	_____	FAC species _____ x3 = _____
5. _____	_____	_____	_____	FACU species _____ x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____ x5 = _____
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				Column Totals: _____ (A) _____ (B)
1. <u>Lolium perenne</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____
2. <u>Agrostis sp.*</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Cirsium arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
4. <u>Geranium lucidum</u>	<u>5</u>	<u>no</u>	<u>NI</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
% Bare Ground in Herb Stratum <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 33  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.6297198 Long: -122.4295541 Datum: NAD83  
 Soil Map Unit Name: LeB - Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 33 was conducted at the west study area boundary.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>		
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)	
4. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>		
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
2. _____	_____	_____	_____	OBL species _____	x1 = _____	
3. _____	_____	_____	_____	FACW species _____	x2 = _____	
4. _____	_____	_____	_____	FAC species _____	x3 = _____	
5. _____	_____	_____	_____	FACU species _____	x4 = _____	
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____	
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)	
1. <u>Lolium perenne</u>	65	yes	FAC	Prevalence Index = B/A = _____		
2. <u>Holcus lanatus</u>	15	no	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
3. <u>Tragopogon pratensis</u>	5	no	UPL			
4. <u>Geranium dissectum</u>	5	no	UPL			
5. <u>Dactylis glomerata</u>	5	no	FACU			
6. <u>Hypochaeris radicata</u>	2	no	FACU			
7. <u>Lotus corniculatus</u>	2	no	FAC			
8. <u>Agrostis sp.*</u>	1	no	FAC			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = 50, 20% = 20	100	= Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b>		
1. _____	_____	_____	_____			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
% Bare Ground in Herb Stratum 0						
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.						



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 34  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.6294824 Long: -122.4293956 Datum: NAD83  
 Soil Map Unit Name: LeB - Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 34 was conducted near the western study area boundary, southeast of TP-33.			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Schedonorus arundinaceus</u>	<u>45</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Lolium perenne</u>	<u>45</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Poa pratensis</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
4. <u>Geranium dissectum</u>	<u>5</u>	<u>no</u>	<u>NI</u>																	
5. <u>Rumex crispus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Plantago major</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
7. <u>Hypochaeris radicata</u>	<u>2</u>	<u>no</u>	<u>FACU</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>53</u> , 20% = <u>21.2</u>	<u>106</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 35  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6282286 Long: -122.4255234 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 35 was conducted within Wetland V.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)		
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)		
4. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>			
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>		
2. _____	_____	_____	_____	OBL species _____	x1 = _____		
3. _____	_____	_____	_____	FACW species _____	x2 = _____		
4. _____	_____	_____	_____	FAC species _____	x3 = _____		
5. _____	_____	_____	_____	FACU species _____	x4 = _____		
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____		
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)		
1. <u>Holcus lanatus</u>	50	yes	FAC	Prevalence Index = B/A = _____			
2. <u>Lolium perenne</u>	35	yes	FAC				
3. <u>Trifolium repens</u>	5	no	FAC				
4. <u>Cirsium arvense</u>	5	no	FAC				
5. <u>Agrostis sp.*</u>	5	no	FAC				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = 50, 20% = 20	100	= Total Cover					
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>			
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
2. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum 0				<b>Hydrophytic Vegetation Present?</b>			
				Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. \*Assumed FAC.

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	<u>10YR 3/1</u>	<u>99</u>	<u>10YR 5/8</u>	<u>1</u>	<u>C</u>	<u>M</u>	<u>si lo</u>	_____
3-10	<u>10YR 3/2</u>	<u>95</u>	<u>10YR 5/8</u>	<u>5</u>	<u>C</u>	<u>M/PL</u>	<u>si lo</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	<u>cl - clay</u>
_____	_____	_____	_____	_____	_____	_____	_____	<u>si - silt</u>
_____	_____	_____	_____	_____	_____	_____	_____	<u>lo - loam</u>

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: <u>compacted soils</u> Depth (inches): <u>10</u>	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:    This soil profile met the hydric soil criterion because the redox dark surface indicator was present.

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> <b>(MLRA 1, 2, 4A, and 4B)</b>			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    The wetland hydrology criterion was met because there were oxidized rhizospheres present.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 36  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6254693 Long: -122.4243275 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 36 was conducted southeast of Wetland E.			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:					
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)				
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)				
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)				
4. _____	_____	_____	_____						
50% = _____, 20% = _____	_____	= Total Cover							
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:					
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:				
2. _____	_____	_____	_____	OBL species _____	x1 = _____				
3. _____	_____	_____	_____	FACW species _____	x2 = _____				
4. _____	_____	_____	_____	FAC species _____	x3 = _____				
5. _____	_____	_____	_____	FACU species _____	x4 = _____				
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____				
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)				
1. <u>Holcus lanatus</u>	30	yes	FAC	Prevalence Index = B/A = _____					
2. <u>Lolium perenne</u>	25	yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)					
3. <u>Agrostis sp.*</u>	20	no	FAC						
4. <u>Festuca rubra</u>	13	no	FAC						
5. <u>Rumex crispus</u>	5	no	FAC						
6. <u>Cirsium arvense</u>	5	no	FAC						
7. <u>Trifolium repens</u>	5	no	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
8. <u>Bromus hordeaceus</u>	5	no	FACU						
9. <u>Ranunculus repens</u>	2	no	FAC						
10. _____	_____	_____	_____						
11. _____	_____	_____	_____						
50% = 55, 20% = 22	110	= Total Cover		<b>Hydrophytic Vegetation Present?</b>					
Woody Vine Stratum (Plot size: _____)						Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
1. _____	_____	_____	_____						
2. _____	_____	_____	_____						
50% = _____, 20% = _____	_____	= Total Cover							
% Bare Ground in Herb Stratum 0									
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.									



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 37  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6254058 Long: -122.4240411 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 37 was conducted southeast of Wetland E.			

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)																																
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%;"><tr><td colspan="2" style="text-align: center;">Total % Cover of:</td><td colspan="2" style="text-align: center;">Multiply by:</td></tr><tr><td>OBL species</td><td>_____</td><td>x1 =</td><td>_____</td></tr><tr><td>FACW species</td><td>_____</td><td>x2 =</td><td>_____</td></tr><tr><td>FAC species</td><td>_____</td><td>x3 =</td><td>_____</td></tr><tr><td>FACU species</td><td>_____</td><td>x4 =</td><td>_____</td></tr><tr><td>UPL species</td><td>_____</td><td>x5 =</td><td>_____</td></tr><tr><td>Column Totals:</td><td>_____ (A)</td><td>_____ (B)</td><td></td></tr><tr><td colspan="4" style="text-align: center;">Prevalence Index = B/A = _____</td></tr></table>	Total % Cover of:		Multiply by:		OBL species	_____	x1 =	_____	FACW species	_____	x2 =	_____	FAC species	_____	x3 =	_____	FACU species	_____	x4 =	_____	UPL species	_____	x5 =	_____	Column Totals:	_____ (A)	_____ (B)		Prevalence Index = B/A = _____			
Total % Cover of:		Multiply by:																																		
OBL species	_____	x1 =	_____																																	
FACW species	_____	x2 =	_____																																	
FAC species	_____	x3 =	_____																																	
FACU species	_____	x4 =	_____																																	
UPL species	_____	x5 =	_____																																	
Column Totals:	_____ (A)	_____ (B)																																		
Prevalence Index = B/A = _____																																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
3. _____	_____	_____	_____																																	
4. _____	_____	_____	_____																																	
5. _____	_____	_____	_____																																	
50% = _____, 20% = _____	_____	= Total Cover																																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																																				
1. <u>Phalaris arundinacea</u>	<u>60</u>	<u>yes</u>	<u>FACW</u>																																	
2. <u>Lolium perenne</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																																	
3. <u>Holcus lanatus</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																																	
4. <u>Agrostis sp.*</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																																	
5. _____	_____	_____	_____																																	
6. _____	_____	_____	_____																																	
7. _____	_____	_____	_____																																	
8. _____	_____	_____	_____																																	
9. _____	_____	_____	_____																																	
10. _____	_____	_____	_____																																	
11. _____	_____	_____	_____																																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																																		
<b>Woody Vine Stratum (Plot size: _____)</b>																																				
1. _____	_____	_____	_____																																	
2. _____	_____	_____	_____																																	
50% = _____, 20% = _____	_____	= Total Cover																																		
% Bare Ground in Herb Stratum <u>0</u>																																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species. \*Assumed FAC.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 38  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6254058 Long: -122.4240411 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 38 was conducted southeast of Wetland E.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Phalaris arundinacea</u>	90	yes	FACW																	
2. <u>Agrostis sp.</u>	10	no	FAC																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = 50, 20% = 20	100	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum 0																				
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="width: 15%; text-align: center;">Yes</td> <td style="width: 15%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 15%; text-align: center;">No</td> <td style="width: 25%; text-align: center;"><input type="checkbox"/></td> </tr> </table>						Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>																
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 39  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6251709 Long: -122.4230765 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 39 was conducted southeast of Wetland E.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Phalaris arundinacea</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>	
2. <u>Juncus effusus</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Lysichiton americanus</u>	<u>10</u>	<u>no</u>	<u>OBL</u>	
4. <u>Agrostis sp.*</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
5. <u>Festuca rubra</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
6. <u>Holcus lanatus</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FACW species. \*Assumed FAC.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 40  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6246562 Long: -122.4224062 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 40 was conducted between Wetlands A and E.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Festuca rubra</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. <u>Agrostis sp.*</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Juncus effusus</u>	<u>15</u>	<u>yes</u>	<u>FACW</u>																	
4. <u>Holcus lanatus</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>																	
5. <u>Trifolium repens</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Lysichiton americanus</u>	<u>10</u>	<u>no</u>	<u>OBL</u>																	
7. <u>Lotus corniculatus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species. *Assumed FAC.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 2/1	100	_____	_____	_____	_____	cl lo	No redox features
7-16	10YR 3/1	100	_____	_____	_____	_____	cl lo	No redox features
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	cl - clay
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b>			
Type: _____			
Depth (inches): _____			
		<b>Hydric Soils Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks: This soil profile did not meet the hydric soil criterion because there were no redoximorphic features.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)			
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> <b>(except MLRA 1, 2, 4A, and 4B)</b>	<input type="checkbox"/> <b>(MLRA 1, 2, 4A, and 4B)</b>			
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)			
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)			
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)			
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)			
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)			
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)			
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>			
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)			
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
			<b>Wetland Hydrology Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: There was no water observed in the test plot during the site visit. The FAC-Neutral Test was met; however, there were no other secondary indicators present, so the wetland hydrology criterion was not met.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 41  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6243707 Long: -122.4224974 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 41 was conducted between Wetlands A and E.			

**VEGETATION – Use scientific names of plants**

Stratum (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>20'</u> diameter)																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>10'</u> diameter)																				
1. <u>Phalaris arundinacea</u>	<u>50</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Schedonorus arundinaceus</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Agrostis sp.*</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
4. <u>Juncus effusus</u>	<u>10</u>	<u>no</u>	<u>FACW</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: _____)																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species. *Assumed FAC.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 42  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6271705 Long: -122.4206459 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 42 was conducted southeast of Wetland U.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)																				
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Schedonorus arundinaceus</u>	<u>68</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Agrostis sp.*</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
3. <u>Dactylis glomerata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>																	
4. <u>Lolium perenne</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
5. <u>Phalaris arundinacea</u>	<u>2</u>	<u>no</u>	<u>FACW</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 43  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6272429 Long: -122.4208522 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 43 was conducted within Wetland U.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
				Column Totals: _____ (A)	_____ (B)
				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Indicators:</b>	
1. <u>Lolium perenne</u>	63	yes	FAC	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
2. <u>Schedonorus arundinaceus</u>	15	no	FAC	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
3. <u>Agrostis sp.</u>	10	no	FAC	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. <u>Alopecurus geniculatus</u>	10	no	OBL	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. <u>Cirsium arvense</u>	2	no	FAC	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = 50, 20% = 20	100	= Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b>	
1. _____	_____	_____	_____	Yes	<input checked="" type="checkbox"/>
2. _____	_____	_____	_____	No	<input type="checkbox"/>
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum 0					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-2	10YR 4/3	98	10YR 5/8	2	C	PL	si cl lo	_____
2-16	10YR 3/2	90	7.5YR 4/6	10	C	PL	si cl lo	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	si - silt
_____	_____	_____	_____	_____	_____	_____	_____	cl - clay
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:    This soil profile met the hydric soil criterion because the redox dark surface indicator was present.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    The wetland hydrology criterion was met because there were oxidized rhizospheres present.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 44  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6276523 Long: -122.420903 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 44 was conducted north of Wetland U.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Lolium perenne</u>	<u>70</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____	
2. <u>Dactylis glomerata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b>	
3. <u>Festuca rubra</u>	<u>10</u>	<u>no</u>	<u>FAC</u>		
4. <u>Agrostis sp.*</u>	<u>5</u>	<u>no</u>	<u>FAC</u>		
5. <u>Trifolium repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
8. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
9. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
10. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
11. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 45  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6275894 Long: -122.4217009 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 45 was conducted west of Wetland U.					

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																		
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)																	
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species <u>55</u></td> <td>x3 = <u>165</u></td> </tr> <tr> <td>FACU species <u>45</u></td> <td>x4 = <u>180</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>345</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.45</u></td> </tr> </table>		<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species <u>55</u>	x3 = <u>165</u>	FACU species <u>45</u>	x4 = <u>180</u>	UPL species _____	x5 = _____	Column Totals: <u>100</u> (A)	<u>345</u> (B)	Prevalence Index = B/A = <u>3.45</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																				
OBL species _____	x1 = _____																				
FACW species _____	x2 = _____																				
FAC species <u>55</u>	x3 = <u>165</u>																				
FACU species <u>45</u>	x4 = <u>180</u>																				
UPL species _____	x5 = _____																				
Column Totals: <u>100</u> (A)	<u>345</u> (B)																				
Prevalence Index = B/A = <u>3.45</u>																					
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. _____	_____	_____	_____																		
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
<b>Herb Stratum (Plot size: 10' diameter)</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
1. <u>Dactylis glomerata</u>	<u>40</u>	<u>yes</u>	<u>FACU</u>																		
2. <u>Schedonorus arundinaceus</u>	<u>40</u>	<u>yes</u>	<u>FAC</u>																		
3. <u>Lolium perenne</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																		
4. <u>Lactuca serriola</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																		
5. _____	_____	_____	_____																		
6. _____	_____	_____	_____																		
7. _____	_____	_____	_____																		
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																			
<b>Woody Vine Stratum (Plot size: _____)</b>																					
1. _____	_____	_____	_____																		
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
% Bare Ground in Herb Stratum <u>0</u>																					
Remarks: The hydrophytic vegetation criterion was not met because the prevalence index was greater than 3.0.																					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 46  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6279963 Long: -122.4225896 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 46 was conducted between Wetlands U and V.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Schedonorus arundinaceus</u>	<u>34</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Agrostis sp.*</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Juncus effusus</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>																	
4. <u>Lolium perenne</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>																	
5. <u>Trifolium repens</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Lotus corniculatus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
7. <u>Ranunculus repens</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species. *Assumed FAC.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	99	7.5YR 4/6	1	C	M	cl lo	
8-16	10YR 3/2	100					cl lo	No redox features
								cl - clay
								lo - loam

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b>			
Type: _____			
Depth (inches): _____			
		<b>Hydric Soils Present?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Remarks: This soil profile did not meet the hydric soil criterion because there was less than 5 percent redox features.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: There was no water or evidence of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 47  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6277994 Long: -122.4226019 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 47 was conducted between Wetlands U and V.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Notes
<b>Tree Stratum</b> (Plot size: <u>30'</u> diameter)				
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>20'</u> diameter)				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: <span style="float: right;">Multiply by:</span> OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>10'</u> diameter)				
1. <u>Schedonorus arundinaceus</u>	<u>48</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agrostis sp.*</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Lolium perenne</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	
4. <u>Juncus effusus</u>	<u>12</u>	<u>no</u>	<u>FACW</u>	
5. <u>Dactylis glomerata</u>	<u>10</u>	<u>no</u>	<u>FACU</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		
<b>Woody Vine Stratum</b> (Plot size: _____)				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 48  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6284864 Long: -122.4236622 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 48 was conducted within Wetland V.					

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Schedonorus arundinaceus</u>	<u>55</u>	<u>yes</u>	<u>FAC</u>	
2. <u>Juncus effusus</u>	<u>35</u>	<u>yes</u>	<u>FACW</u>	
3. <u>Lolium perenne</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>47.5</u> , 20% = <u>19</u>	<u>95</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>5</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/1	98	7.5YR 4/6	2	C	PL	cl lo	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	cl - clay
_____	_____	_____	_____	_____	_____	_____	_____	lo - loam

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)				Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.			
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<b>Restrictive Layer (if present):</b> Type: <u>compacted soil</u> Depth (inches): <u>10</u>	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: This soil profile met the hydric soil criterion because the redox dark surface indicator was present.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The wetland hydrology criterion was met because there were oxidized rhizospheres present.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-18-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 49  
 Investigator(s): SH and AJ Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6284864 Long: -122.4236622 Datum: NAD83  
 Soil Map Unit Name: ThA - Tisch silt loam, 0 to 3 percent slopes NWI classification: PFOA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 49 was conducted east of Wetland V.			

**VEGETATION – Use scientific names of plants**

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)																				
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Schedonorus arundinaceus</u>	<u>80</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Agrostis sp.*</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
3. <u>Lolium perenne</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species. *Assumed FAC.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-12-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 81  
 Investigator(s): OM and BR Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.6313975 Long: -122.4273762 Datum: NAD83  
 Soil Map Unit Name: LeB - Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 81 was conducted north of Wetland V at the north study area boundary.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. <u><i>Thuja plicata</i></u>	<u>20</u>	<u>yes</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)		
2. <u><i>Pseudotsuga menziesii</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata:	<u>7</u> (B)		
3. <u><i>Alnus rubra</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>29</u> (A/B)		
4. _____	_____	_____	_____				
50% = <u>20</u> , 20% = <u>8</u>	<u>40</u>	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:			
1. <u><i>Mahonia aquifolium</i></u>	<u>20</u>	<u>yes</u>	<u>FACU</u>				
2. <u><i>Symphoricarpos albus</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>				
3. <u><i>Rubus armeniacus</i></u>	<u>10</u>	<u>yes</u>	<u>FAC</u>				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
50% = <u>20</u> , 20% = <u>8</u>	<u>40</u>	= Total Cover					
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:			
1. <u><i>Geranium dissectum</i></u>	<u>25</u>	<u>yes</u>	<u>UPL</u>				
2. <u><i>Rubus ursinus</i></u>	<u>15</u>	<u>yes</u>	<u>FACU</u>				
3. <u><i>Tiarella trifoliata</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
4. _____	_____	_____	_____				
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u>	= Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>55</u>							

Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 82  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.63112 Long: -122.427 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 82 was conducted in the northwest corner of the property in Wetland V.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1. <u>Fraxinus latifolia</u>	<u>50</u>	<u>yes</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>4</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>4</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u>	(A/B)
4. _____	_____	_____	_____			
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover				
Sapling/Shrub Stratum (Plot size: 20' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:		
1. <u>Rubus armeniacus</u>	<u>5</u>	<u>yes</u>	<u>FAC</u>			
2. _____	_____	_____	_____	OBL species	_____	x1 = _____
3. _____	_____	_____	_____	FACW species	_____	x2 = _____
4. _____	_____	_____	_____	FAC species	_____	x3 = _____
5. _____	_____	_____	_____	FACU species	_____	x4 = _____
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		UPL species	_____	x5 = _____
Herb Stratum (Plot size: 10' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals:	_____ (A)	_____ (B)
1. <u>Phalaris arundinacea</u>	<u>70</u>	<u>yes</u>	<u>FACW</u>	Prevalence Index = B/A = _____		
2. <u>Poa pratensis</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
3. <u>Ranunculus repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>			
4. _____	_____	_____	_____			
5. _____	_____	_____	_____			
6. _____	_____	_____	_____			
7. _____	_____	_____	_____			
8. _____	_____	_____	_____			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b> <div style="display: flex; justify-content: space-between; width: 100%;"> <span>Yes <input checked="" type="checkbox"/></span> <span>No <input type="checkbox"/></span> </div>		
1. _____	_____	_____	_____			
2. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>						
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC and FACW species.						



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 83  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.63063 Long: -122.429 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 83 was conducted in the northwest corner of the property in Wetland V.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Lolium perenne</u>	50	yes	FAC	Prevalence Index = B/A = _____	
2. <u>Phleum pratense</u>	2	no	FAC		
3. <u>Taraxacum officinale</u>	2	no	FACU		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>27</u> , 20% = <u>10.8</u>	54	= Total Cover			
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>	
1. _____	_____	_____	_____	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
2. _____	_____	_____	_____	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
% Bare Ground in Herb Stratum <u>46</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
				<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 84  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.63064 Long: -122.429 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 84 was conducted in the northwest corner of the property outside of Wetland V.			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Holcus lanatus</u>	<u>35</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Dactylis glomerata</u>	<u>25</u>	<u>yes</u>	<u>FACU</u>																	
3. <u>Lolium perenne</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
4. <u>Cirsium arvense</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
5. <u>Schedonorus arundinaceus</u>	<u>15</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Phleum pratense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>65</u> , 20% = <u>26</u>	<u>130</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	<u>10YR 4/4</u>	<u>98</u>	<u>5YR 4/6</u>	<u>2</u>	<u>C</u>	<u>M</u>	<u>silt loam</u>	
10-16	<u>10YR 4/4</u>	<u>88</u>	<u>5YR 4/6</u>	<u>12</u>	<u>C</u>	<u>M</u>	<u>silt loam</u>	
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)						<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)						<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)						<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)						<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)						<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)								
<input type="checkbox"/> Sandy Mucky Mineral (S1)								
<input type="checkbox"/> Sandy Gleyed Matrix (S4)								
<input type="checkbox"/> Sandy Redox (S5)								
<input type="checkbox"/> Stripped Matrix (S6)								
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)								
<input type="checkbox"/> Loamy Gleyed Matrix (F2)								
<input type="checkbox"/> Depleted Matrix (F3)								
<input type="checkbox"/> Redox Dark Surface (F6)								
<input type="checkbox"/> Depleted Dark Surface (F7)								
<input type="checkbox"/> Redox Depressions (F8)								
<b>Restrictive Layer (if present):</b>								
Type: _____								
Depth (inches): _____					<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:    The soil profile did not meet any hydric soil indicators due to high matrix color.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Water Marks (B1)	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Other (Explain in Remarks)	
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:    Hydrology was not present during the field visit and there was no evidence of wetland hydrology.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 85  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62805 Long: -122.425 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 85 was conducted outside of Wetland V in an open pasture.			

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	100 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>				<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
<b>Herb Stratum (Plot size: 10' diameter)</b>				Column Totals: _____ (A)	_____ (B)
1. <u>Lolium perenne</u>	50	yes	FAC	Prevalence Index = B/A = _____	
2. <u>Schedonorus arundinaceus</u>	20	yes	FAC	<b>Hydrophytic Vegetation Indicators:</b>	
3. <u>Poa pratensis</u>	10	no	FAC		
4. <u>Dactylis glomerata</u>	10	no	FACU		
5. <u>Rumex crispus</u>	5	no	FAC		
6. <u>Trifolium repens</u>	2	no	FAC		
7. <u>Geranium dissectum</u>	2	no	UPL		
8. <u>Vicia americana</u>	2	no	FAC		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>50.5</u> , 20% = <u>20.2</u>	101	= Total Cover			
<b>Woody Vine Stratum (Plot size: _____)</b>				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
1. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
2. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
% Bare Ground in Herb Stratum 0				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
				<b>Hydrophytic Vegetation Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 3/3	99	10YR 4/6	1	C	M	silt loam	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)						<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)						<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)						<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)						<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)						<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)								
<input type="checkbox"/> Sandy Mucky Mineral (S1)								
<input type="checkbox"/> Sandy Gleyed Matrix (S4)								
<input type="checkbox"/> Sandy Redox (S5)								
<input type="checkbox"/> Stripped Matrix (S6)								
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)								
<input type="checkbox"/> Loamy Gleyed Matrix (F2)								
<input type="checkbox"/> Depleted Matrix (F3)								
<input type="checkbox"/> Redox Dark Surface (F6)								
<input type="checkbox"/> Depleted Dark Surface (F7)								
<input type="checkbox"/> Redox Depressions (F8)								
<b>Restrictive Layer (if present):</b>								
Type: _____								
Depth (inches): _____					<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:    The soil profile did not meet any hydric soil indicators due to high matrix color.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>		<b>(MLRA 1, 2, 4A, and 4B)</b>		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)		<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Frost-Heave Hummocks (D7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:    Hydrology was not present during the field visit and there was no evidence of wetland hydrology.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 86  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62817 Long: -122.425 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 86 was conducted in Wetland V in an open pasture.					

### VEGETATION – Use scientific names of plants

Stratum (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>20'</u> diameter)																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>10'</u> diameter)																				
1. <u>Schedonorus arundinaceus</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Holcus lanatus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Lolium perenne</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
4. <u>Trifolium repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
5. <u>Plantago major</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Taraxacum officinale</u>	<u>2</u>	<u>no</u>	<u>FACU</u>																	
7. <u>Geranium dissectum</u>	<u>2</u>	<u>no</u>	<u>UPL</u>																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>55.5</u> , 20% = <u>22.2</u>	<u>111</u>	= Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: _____)																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 87  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6236 Long: -122.415 Datum: NAD83  
 Soil Map Unit Name: Sr - Semiahmoo muck NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 87 was conducted north of Wetland W and west of Stream B.					

**VEGETATION – Use scientific names of plants**

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)		
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>2</u> (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)		
4. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				<b>Prevalence Index worksheet:</b>			
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>		
2. _____	_____	_____	_____	OBL species _____	x1 = _____		
3. _____	_____	_____	_____	FACW species _____	x2 = _____		
4. _____	_____	_____	_____	FAC species _____	x3 = _____		
5. _____	_____	_____	_____	FACU species _____	x4 = _____		
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				Column Totals: _____ (A)	_____ (B)		
1. <u>Dactylis glomerata</u>	<u>60</u>	<u>yes</u>	<u>FACU</u>	Prevalence Index = B/A = _____			
2. <u>Poa pratensis</u>	<u>25</u>	<u>yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
3. <u>Lolium perenne</u>	<u>10</u>	<u>no</u>	<u>FAC</u>				
4. <u>Cirsium arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
5. _____	_____	_____	_____				
6. _____	_____	_____	_____				
7. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover		<b>Hydrophytic Vegetation Present?</b>			
<u>Woody Vine Stratum</u> (Plot size: _____)						Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____				
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>0</u>							
Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.							



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 88  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6259 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: ThA- Tisch silt loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 88 was conducted along the east study area boundary in an open pasture.					

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	1 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	2 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species <u>5</u>	x2 = <u>10</u>
4. _____	_____	_____	_____	FAC species <u>70</u>	x3 = <u>210</u>
5. _____	_____	_____	_____	FACU species <u>35</u>	x4 = <u>140</u>
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals:	<u>110</u> (A) <u>360</u> (B)
1. <u>Schedonorus arundinaceus</u>	<u>60</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = <u>3.27</u>	
2. <u>Poa pratensis</u>	<u>30</u>	<u>yes</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators:	
3. <u>Lolium perenne</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
4. <u>Phalaris arundinacea</u>	<u>5</u>	<u>no</u>	<u>FACW</u>	<input type="checkbox"/> 2 - Dominance Test is >50%	
5. <u>Dactylis glomerata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
6. <u>Cirsium arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
7. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>	
8. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>55</u> , 20% = <u>22</u>	<u>110</u>	= Total Cover		Hydrophytic Vegetation Present?	
Woody Vine Stratum (Plot size: _____)				Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>0</u>					
Remarks: The hydrophytic vegetation criterion was not met because dominance by FAC species was not greater than 50 percent and the Prevalence Index was greater than 3.0.					

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	<u>10YR 2/1</u>	<u>99</u>	<u>10YR 4/6</u>	<u>1</u>	<u>C</u>	<u>M</u>	<u>clay loam</u>	_____
10-16	<u>10YR 2/1</u>	<u>98</u>	<u>5YR 4/6</u>	<u>2</u>	<u>C</u>	<u>M</u>	<u>clay</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)						<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)						<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)						<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)						<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)						<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)								
<input type="checkbox"/> Sandy Mucky Mineral (S1)								
<input type="checkbox"/> Sandy Gleyed Matrix (S4)								
<input type="checkbox"/> Sandy Redox (S5)								
<input type="checkbox"/> Stripped Matrix (S6)								
<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)								
<input type="checkbox"/> Loamy Gleyed Matrix (F2)								
<input type="checkbox"/> Depleted Matrix (F3)								
<input type="checkbox"/> Redox Dark Surface (F6)								
<input type="checkbox"/> Depleted Dark Surface (F7)								
<input type="checkbox"/> Redox Depressions (F8)								
<b>Restrictive Layer (if present):</b>								
Type: _____								
Depth (inches): _____					<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Remarks:      This soil profile did not meet any hydric soils indicators due to the redoximorphic features being less than 5%.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>		<b>(MLRA 1, 2, 4A, and 4B)</b>		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input checked="" type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)		<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Frost-Heave Hummocks (D7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					
<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:      Secondary indicator Geomorphic Position (D2) was present. Wetland Hydrology was not met because two or more secondary indicators are required.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 89  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62569 Long: -122.415 Datum: NAD83  
 Soil Map Unit Name: ThA- Tisch silt loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 89 was conducted along the east study area boundary in an open pasture.					

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																		
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)																	
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>30</u></td> <td>x3 = <u>90</u></td> </tr> <tr> <td>FACU species <u>65</u></td> <td>x4 = <u>260</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>105 (A)</u></td> <td><u>370 (B)</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.52</u></td> </tr> </table>		<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species <u>10</u>	x2 = <u>20</u>	FAC species <u>30</u>	x3 = <u>90</u>	FACU species <u>65</u>	x4 = <u>260</u>	UPL species _____	x5 = _____	Column Totals: <u>105 (A)</u>	<u>370 (B)</u>	Prevalence Index = B/A = <u>3.52</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																				
OBL species _____	x1 = _____																				
FACW species <u>10</u>	x2 = <u>20</u>																				
FAC species <u>30</u>	x3 = <u>90</u>																				
FACU species <u>65</u>	x4 = <u>260</u>																				
UPL species _____	x5 = _____																				
Column Totals: <u>105 (A)</u>	<u>370 (B)</u>																				
Prevalence Index = B/A = <u>3.52</u>																					
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
1. _____	_____	_____	_____																		
2. _____	_____	_____	_____																		
3. _____	_____	_____	_____																		
4. _____	_____	_____	_____																		
5. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
<b>Herb Stratum (Plot size: 10' diameter)</b>																					
1. <u>Poa pratensis</u>	<u>40</u>	<u>yes</u>	<u>FACU</u>																		
2. <u>Schedonorus arundinaceus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																		
3. <u>Lolium perenne</u>	<u>20</u>	<u>no</u>	<u>FACU</u>																		
4. <u>Phalaris arundinacea</u>	<u>10</u>	<u>no</u>	<u>FACW</u>																		
5. <u>Dactylis glomerata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																		
6. _____	_____	_____	_____																		
7. _____	_____	_____	_____																		
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>52.5</u> , 20% = <u>21</u>	<u>105</u>	= Total Cover																			
<b>Woody Vine Stratum (Plot size: _____)</b>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																	
1. _____	_____	_____	_____																		
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
% Bare Ground in Herb Stratum <u>0</u>																					
Remarks: The hydrophytic vegetation criterion was not met because dominance by FAC species was not greater than 50 percent and the Prevalence Index is greater than 3.0.																					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 90  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.6224 Long: -122.415 Datum: NAD83  
 Soil Map Unit Name: ThA- Tisch silt loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 90 was conducted in the southeast corner of the study area in Wetland W.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	3 (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	67 (A/B)
4. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:
2. _____	_____	_____	_____	OBL species _____	x1 = _____
3. _____	_____	_____	_____	FACW species _____	x2 = _____
4. _____	_____	_____	_____	FAC species _____	x3 = _____
5. _____	_____	_____	_____	FACU species _____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)
1. <u>Lolium perenne</u>	15	yes	FAC	Prevalence Index = B/A = _____	
2. <u>Schedonorus arundinaceus</u>	10	yes	FAC	Hydrophytic Vegetation Indicators:	
3. <u>Poa pratensis</u>	10	yes	FACU	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
4. <u>Ranunculus repens</u>	5	no	FAC	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
5. <u>Trifolium repens</u>	5	no	FAC		
6. <u>Dactylis glomerata</u>	2	no	FACU		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
50% = <u>23.5</u> , 20% = <u>9.4</u>	47	= Total Cover		Hydrophytic Vegetation Present?	
Woody Vine Stratum (Plot size: _____)				Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
50% = _____, 20% = _____	_____	= Total Cover			
% Bare Ground in Herb Stratum <u>53</u>					
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.					



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 91  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62216 Long: -122.415 Datum: NAD83  
 Soil Map Unit Name: ThA- Tisch silt loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Test Plot 91 was conducted in the southeast corner of the study area outside of Wetland W.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>		
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	0 (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	1 (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	0 (A/B)	
4. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
Sapling/Shrub Stratum (Plot size: 20' diameter)				<b>Prevalence Index worksheet:</b>		
1. _____	_____	_____	_____	<u>Total % Cover of:</u>	<u>Multiply by:</u>	
2. _____	_____	_____	_____	OBL species _____	x1 = _____	
3. _____	_____	_____	_____	FACW species _____	x2 = _____	
4. _____	_____	_____	_____	FAC species _____	x3 = _____	
5. _____	_____	_____	_____	FACU species _____	x4 = _____	
50% = _____, 20% = _____	_____	= Total Cover		UPL species _____	x5 = _____	
Herb Stratum (Plot size: 10' diameter)				Column Totals: _____ (A)	_____ (B)	
1. <u>Dactylis glomerata</u>	100	yes	FACU	Prevalence Index = B/A = _____		
2. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
3. _____	_____	_____	_____			
4. _____	_____	_____	_____			
5. _____	_____	_____	_____			
6. _____	_____	_____	_____			
7. _____	_____	_____	_____			
8. _____	_____	_____	_____			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = 50, 20% = 20	100	= Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b>		
1. _____	_____	_____	_____			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
% Bare Ground in Herb Stratum 0						
Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.						



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 92  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR): MLRA 2 Lat: 45.62224 Long: -122.415 Datum: NAD83  
 Soil Map Unit Name: ThA- Tisch silt loam, 0 to 3 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 92 was conducted in the southeast corner of the study area in Wetland W.					

## VEGETATION – Use scientific names of plants

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>		
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>3</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>3</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u>	(A/B)
4. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Prevalence Index worksheet:</b>		
1. _____	_____	_____	_____	<u>Total % Cover of:</u> <span style="float: right;"><u>Multiply by:</u></span>		
2. _____	_____	_____	_____	OBL species	_____	x1 = _____
3. _____	_____	_____	_____	FACW species	_____	x2 = _____
4. _____	_____	_____	_____	FAC species	_____	x3 = _____
5. _____	_____	_____	_____	FACU species	_____	x4 = _____
50% = _____, 20% = _____	_____	= Total Cover		UPL species	_____	x5 = _____
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Column Totals:	_____ (A)	_____ (B)
1. <u>Holcus lanatus</u>	<u>35</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____		
2. <u>Ranunculus repens</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b>		
3. <u>Phalaris arundinacea</u>	<u>20</u>	<u>yes</u>	<u>FACW</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation		
4. <u>Alopecurus pratensis</u>	<u>10</u>	<u>no</u>	<u>FAC</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%		
5. <u>Agrostis sp.*</u>	<u>5</u>	<u>no</u>	<u>FAC</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
6. <u>Dactylis glomerata</u>	<u>5</u>	<u>no</u>	<u>FACU</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
7. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>		
8. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
9. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Hydrophytic Vegetation Present?</b>		
1. _____	_____	_____	_____	Yes	<input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
% Bare Ground in Herb Stratum <u>0</u>						
Remarks: The hydrophytic vegetation criterion is met because there is greater than 50% dominance by FAC and FACW species. *Assumed FAC						

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-16	10YR 2/1	90	10YR 3/6	8	C	M	si-cl loam	
			10YR 5/8	2	C	M		
								si-silty
								cl-clay

<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, RC=Root Channel

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)			Indicators for Problematic Hydric Soils <sup>3</sup> :		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)				
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)				

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: The soil profile matches the description for indicator F6, Redox Dark Surface, because at least 4 of the upper 12 inches has a value less than 3 and chroma less than 2 and at least 2% distinct redoximorphic features.

**HYDROLOGY**

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?        Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: The presence of oxidized rhizospheres within the upper 12 inches of the soil profile is a primary indicator of wetland hydrology.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 93  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62186 Long: -122.416 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 93 was conducted in the southeast corner of the study area near the manure treatment pond.					

### VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:			
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC:	2 (A)		
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	4 (B)		
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	50 (A/B)		
4. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
Sapling/Shrub Stratum (Plot size: 20' diameter)				Prevalence Index worksheet:			
1. _____	_____	_____	_____	Total % Cover of:	Multiply by:		
2. _____	_____	_____	_____	OBL species _____	x1 = _____		
3. _____	_____	_____	_____	FACW species <u>40</u>	x2 = <u>80</u>		
4. _____	_____	_____	_____	FAC species <u>25</u>	x3 = <u>75</u>		
5. _____	_____	_____	_____	FACU species <u>10</u>	x4 = <u>40</u>		
50% = _____, 20% = _____	_____	= Total Cover		UPL species <u>10</u>	x5 = <u>50</u>		
Herb Stratum (Plot size: 10' diameter)				Column Totals:	<u>85</u> (A) <u>245</u> (B)		
1. <u>Phalaris arundinacea</u>	<u>40</u>	<u>yes</u>	<u>FACW</u>	Prevalence Index = B/A = <u>2.88</u>			
2. <u>Agrostis sp.*</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:			
3. <u>Jacobaea vulgaris</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
4. <u>Geranium dissectum</u>	<u>10</u>	<u>yes</u>	<u>UPL</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
5. <u>Trifolium repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
6. <u>Rumex crispus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
7. <u>Holcus lanatus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>				
8. _____	_____	_____	_____				
9. _____	_____	_____	_____				
10. _____	_____	_____	_____				
11. _____	_____	_____	_____				
50% = <u>42.5</u> , 20% = <u>17</u>	<u>85</u>	= Total Cover					
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b>			
1. _____	_____	_____	_____			Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. _____	_____	_____	_____				
50% = _____, 20% = _____	_____	= Total Cover					
% Bare Ground in Herb Stratum <u>15</u>							
Remarks: The hydrophytic vegetation criterion was met because the Prevalence Index is less than 3.0. *Assumed FAC							



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 94  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): MLRA 2 Lat: 45.62245 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Test Plot 94 was conducted in the southeast corner of the study area outside of Wetland W.			

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species <u>80</u></td> <td>x3 = <u>240</u></td> </tr> <tr> <td>FACU species <u>20</u></td> <td>x4 = <u>80</u></td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>100 (A)</u></td> <td><u>320 (B)</u></td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.2</u></td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species <u>80</u>	x3 = <u>240</u>	FACU species <u>20</u>	x4 = <u>80</u>	UPL species _____	x5 = _____	Column Totals: <u>100 (A)</u>	<u>320 (B)</u>	Prevalence Index = B/A = <u>3.2</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species <u>80</u>	x3 = <u>240</u>																			
FACU species <u>20</u>	x4 = <u>80</u>																			
UPL species _____	x5 = _____																			
Column Totals: <u>100 (A)</u>	<u>320 (B)</u>																			
Prevalence Index = B/A = <u>3.2</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Holcus lanatus</u>	<u>45</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Dactylis glomerata</u>	<u>15</u>	<u>yes</u>	<u>FACU</u>																	
3. <u>Lolium perenne</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
4. <u>Agrostis sp.*</u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
5. <u>Trifolium repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
6. <u>Rumex crispus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
7. <u>Equisetum arvense</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
8. <u>Taraxacum officinale</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																				
Remarks: The hydrophytic vegetation criterion was met because the Prevalence Index was greater than 3.0. *Assumed FAC																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 95  
 Investigator(s): FN and BR Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): LRR A Lat: 45.62299 Long: -122.4175 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 95 was conducted in the southeast corner of the study area approximately 100 feet north of the manure lagoon.					

### VEGETATION – Use scientific names of plants

Stratum	Absolute % Cover	Dominant Species?	Indicator Status			
<b>Tree Stratum</b> (Plot size: 30' diameter)				<b>Dominance Test Worksheet:</b>		
1. _____	_____	_____	_____		Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. _____	_____	_____	_____		Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____	_____	_____	_____		Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____			
50% = _____, 20% = _____	_____	= Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: 20' diameter)					<b>Prevalence Index worksheet:</b>	
1. _____	_____	_____	_____			<b>Total % Cover of:</b>
2. _____	_____	_____	_____			<b>Multiply by:</b>
3. _____	_____	_____	_____			OBL species _____ x1 = _____
4. _____	_____	_____	_____	FACW species _____ x2 = _____		
5. _____	_____	_____	_____	FAC species _____ x3 = _____		
50% = _____, 20% = _____	_____	= Total Cover		FACU species _____ x4 = _____		
<b>Herb Stratum</b> (Plot size: 10' diameter)				UPL species _____ x5 = _____		
1. <u>Schedonorus arundinaceus</u>	<u>40</u>	<u>yes</u>	<u>FAC</u>	Column Totals: _____ (A) _____ (B)		
2. <u>Holcus lanatus</u>	<u>40</u>	<u>yes</u>	<u>FAC</u>	Prevalence Index = B/A = _____		
3. <u>Trifolium repens</u>	<u>10</u>	<u>no</u>	<u>FAC</u>			
4. <u>Lotus corniculatus</u>	<u>5</u>	<u>no</u>	<u>FAC</u>			
5. <u>Lolium perenne</u>	<u>5</u>	<u>no</u>	<u>FAC</u>			
6. <u>Rumex crispus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>			
7. <u>Ranunculus repens</u>	<u>2</u>	<u>no</u>	<u>FAC</u>			
8. _____	_____	_____	_____			
9. _____	_____	_____	_____			
10. _____	_____	_____	_____			
11. _____	_____	_____	_____			
50% = <u>52</u> , 20% = <u>20.8</u>	<u>104</u>	= Total Cover				
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Indicators:</b>		
1. _____	_____	_____	_____		<input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation	
2. _____	_____	_____	_____		<input checked="" type="checkbox"/> 2 - Dominance Test is >50%	
50% = _____, 20% = _____	_____	= Total Cover		<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>		
% Bare Ground in Herb Stratum <u>0</u>				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
				<input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup>		
				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.						

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100	_____	_____	_____	_____	silt loam	_____
8-16	10YR 4/3	100	_____	_____	_____	_____	silt loam	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

<b>Restrictive Layer (if present):</b>	<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: _____ Depth (inches): _____	

Remarks: This soil profile does not meet hydric soil indicators because the soil is not composed of organic material, there are no redoximorphic features, and the matrix color is high. Soil presents relatively well-drained conditions.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <b>(except MLRA 1, 2, 4A, and 4B)</b> <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b> <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <b>(MLRA 1, 2, 4A, and 4B)</b> <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b> <input type="checkbox"/> Frost-Heave Hummocks (D7)
<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: This location is historically and presently drained by agricultural clay and plastic drain tiles, dating back to the 1070's, per the landowner and farm operator.	

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 96  
 Investigator(s): FN and BR Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 0-8%  
 Subregion (LRR): LRR A Lat: 45.62323 Long: -122.4178 Datum: NAD83  
 Soil Map Unit Name: LeB- Lauren loam, 0 to 8 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 96 was conducted in the southeast corner of the study area approximately 200 feet north of the manure lagoon.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = <u>2.5</u> , 20% = <u>1</u>	_____	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Schedonorus arundinaceus</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Holcus lanatus</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Ranunculus repens</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
4. <u>Lolium perenne</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
5. <u>Rumex crispus</u>	<u>2</u>	<u>no</u>	<u>FAC</u>																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>24.5</u> , 20% = <u>9.8</u>	<u>49</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;">Yes <input checked="" type="checkbox"/></td> <td style="text-align: center;">No <input type="checkbox"/></td> </tr> </table>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>													
	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>																		
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>51</u>																				

Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species The bare ground in this area is due to a cattle feeding station placed here..

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/2	100	_____	_____	_____	_____	silt loam	_____
10-16	10YR 4/3	100	_____	_____	_____	_____	silt loam	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
<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, RC=Root Channel								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Sandy Redox (S5)			<input type="checkbox"/> 2 cm Muck (A10)		
<input type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Stripped Matrix (S6)			<input type="checkbox"/> Red Parent Material (TF2)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>			<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Other (Explain in Remarks)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Depleted Matrix (F3)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Redox Dark Surface (F6)					
<input type="checkbox"/> Sandy Mucky Mineral (S1)			<input type="checkbox"/> Depleted Dark Surface (F7)					
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			<input type="checkbox"/> Redox Depressions (F8)					
<b>Restrictive Layer (if present):</b>					<b>Hydric Soils Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Type: _____								
Depth (inches): _____								
Remarks:    The soil profile does not meet the hydric soil indicators because the soil is not composed of organic material, there are no redoximorphic features, and the matrix color is high. Soil presents well-drained conditions and is compacted due to cattle feeding station.								

**HYDROLOGY**

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
			<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
			<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Shallow Aquitard (D3)
			<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> FAC-Neutral Test (D5)
			<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>
			<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<b>Field Observations:</b>			<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:    This location is historically and presently drained by agricultural clay and plastic drain tiles, dating back to the 1070's, per the landowner and farm operator.					

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 97  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62877 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Test Plot 97 was conducted in the northeast corner of the study area outside of Wetland Y.			

**VEGETATION – Use scientific names of plants**

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u><i>Alnus rubra</i></u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. <u><i>Rubus armeniacus</i></u>	<u>90</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u><i>Rubus spectabilis</i></u>	<u>10</u>	<u>no</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u><i>Athyrium cyclosorum</i></u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">No</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>		Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>											
	Yes	<input checked="" type="checkbox"/>	No		<input type="checkbox"/>															
2. <u><i>Tolmiea menziesii</i></u>	<u>10</u>	<u>yes</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>75</u>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC species.																				



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 98  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62858 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 98 was conducted in the northeast corner of the study area in Wetland Y.					

## VEGETATION – Use scientific names of plants

<u>Tree Stratum</u> (Plot size: <u>30'</u> diameter)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet:</b>
1. <u><i>Alnus rubra</i></u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>1</u>	<u>5</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>20'</u> diameter)				
1. <u><i>Rubus armeniacus</i></u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	
2. <u><i>Rubus spectabilis</i></u>	<u>5</u>	<u>yes</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = <u>10</u> , 20% = <u>4</u>	<u>20</u>	= Total Cover		
<u>Herb Stratum</u> (Plot size: <u>10'</u> diameter)				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u><i>Glyceria elata</i></u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	
2. <u><i>Lysichiton americanus</i></u>	<u>10</u>	<u>yes</u>	<u>OBL</u>	
3. <u><i>Athyrium cyclosum</i></u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
4. <u><i>Oenanthe sarmentosa</i></u>	<u>10</u>	<u>yes</u>	<u>OBL</u>	
5. <u><i>Ranunculus repens</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>	
6. <u><i>Juncus effusus</i></u>	<u>5</u>	<u>no</u>	<u>FACW</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
50% = <u>2.5</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum <u>50</u>				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC, FACW, and OBL species.				

**SOIL**

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-9	<u>10YR 3/2</u>	<u>98</u>	<u>10YR 3/6</u>	<u>2</u>	<u>C</u>	<u>M</u>	<u>gr sa loam</u>	_____
9-16	<u>10YR 3/1</u>	<u>96</u>	<u>10YR 4/6</u>	<u>2</u>	<u>C</u>	<u>M</u>	<u>gr sa loam</u>	_____
9-16	_____	_____	<u>10YR 4/1</u>	<u>2</u>	_____	_____	<u>gr sa lo</u>	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	<u>gr-gravelly</u>
_____	_____	_____	_____	_____	_____	_____	_____	<u>sa- sandy</u>

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>			<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) <b>(except MLRA 1)</b>	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b> Type: _____ Depth (inches): _____	<b>Hydric Soils Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	--

Remarks:    Presence of Hydrogen Sulfide odor within the upper 12 inches meets indicator A4.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Water-Stained Leaves (B9)	
<input checked="" type="checkbox"/> High Water Table (A2)	<b>(except MLRA 1, 2, 4A, and 4B)</b>	<b>(MLRA 1, 2, 4A, and 4B)</b>	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> FAC-Neutral Test (D5)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Stunted or Stresses Plants (D1) <b>(LRR A)</b>	<input type="checkbox"/> Raised Ant Mounds (D6) <b>(LRR A)</b>	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)			

<b>Field Observations:</b> Surface Water Present?    Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>9</u> Saturation Present? (includes capillary fringe)    Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:    A high water table was observed at a depth of 9 inches, soil saturation at the surface, and there was a hydrogen sulfide odor. Therefore, primary wetland hydrology indicators are present.

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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 99  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62858 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Remarks: Test Plot 99 was conducted near the eastern boundary outside of Wetland Z.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																	
1. <u><i>Acer macrophyllum</i></u>	<u>25</u>	<u>yes</u>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>2</u> (A)																
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata:	<u>5</u> (B)																
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>40</u> (A/B)																
4. _____	_____	_____	_____																		
50% = <u>12.5</u> , 20% = <u>5</u>	<u>25</u>	= Total Cover																			
<u>Sapling/Shrub Stratum (Plot size: 20' diameter)</u>																					
1. <u><i>Rubus armeniacus</i></u>	<u>15</u>	<u>yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>		<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																				
OBL species _____	x1 = _____																				
FACW species _____	x2 = _____																				
FAC species _____	x3 = _____																				
FACU species _____	x4 = _____																				
UPL species _____	x5 = _____																				
Column Totals: _____ (A)	_____ (B)																				
Prevalence Index = B/A = _____																					
2. <u><i>Corylus cornuta</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																		
3. <u><i>Oemleria cerasiformis</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>																		
4. <u><i>Symphoricarpos albus</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>																		
5. <u><i>Rubus spectabilis</i></u>	<u>5</u>	<u>no</u>	<u>FAC</u>																		
50% = <u>20</u> , 20% = <u>8</u>	<u>40</u>	= Total Cover																			
<u>Herb Stratum (Plot size: 10' diameter)</u>																					
1. <u><i>Galium aparine</i></u>	<u>10</u>	<u>yes</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																	
2. <u><i>Tolmiea menziesii</i></u>	<u>10</u>	<u>yes</u>	<u>FAC</u>																		
3. <u><i>Polystichum munitum</i></u>	<u>5</u>	<u>no</u>	<u>FACU</u>																		
4. <u><i>Adiantum aleuticum</i></u>	<u>2</u>	<u>no</u>	<u>FAC</u>																		
5. _____	_____	_____	_____																		
6. _____	_____	_____	_____																		
7. _____	_____	_____	_____																		
8. _____	_____	_____	_____																		
9. _____	_____	_____	_____																		
10. _____	_____	_____	_____																		
11. _____	_____	_____	_____																		
50% = <u>13.5</u> , 20% = <u>5.4</u>	<u>27</u>	= Total Cover																			
<u>Woody Vine Stratum (Plot size: _____)</u>																					
1. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Yes</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">No</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>		Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>												
Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>																		
2. _____	_____	_____	_____																		
50% = _____, 20% = _____	_____	= Total Cover																			
% Bare Ground in Herb Stratum <u>73</u>																					

Remarks: The hydrophytic vegetation criterion was not met because there was less than 50 percent dominance by FAC species.



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

Project Site: Lacamas Northshore City/County: Camas/Clark Sampling Date: 6-10-25  
 Applicant/Owner: SunCal Acquisitions, LLC State: WA Sampling Point: TP 100  
 Investigator(s): BR and OM Section, Township, Range: S27, T2, R3E WM  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 8-20%  
 Subregion (LRR): MLRA 2 Lat: 45.62858 Long: -122.414 Datum: NAD83  
 Soil Map Unit Name: LqD- Lauren gravelly loam, 8 to 20 percent slopes NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology , significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks: Test Plot 100 was conducted near the eastern boundary in Wetland Z.					

## VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30' diameter)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of:</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum (Plot size: 20' diameter)</b>																				
1. <u>Rubus armeniacus</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = <u>7.5</u> , 20% = <u>3</u>	<u>15</u>	= Total Cover																		
<b>Herb Stratum (Plot size: 10' diameter)</b>																				
1. <u>Athyrium cyclosorum</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
2. <u>Oenanthe sarmentosa</u>	<u>25</u>	<u>yes</u>	<u>OBL</u>																	
3. <u>Glyceria elata</u>	<u>15</u>	<u>no</u>	<u>FACW</u>																	
4. <u>Lysichiton americanus</u>	<u>5</u>	<u>no</u>	<u>OBL</u>																	
5. <u>Polystichum munitum</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
6. <u>Tiarella trifoliata</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
50% = <u>42.5</u> , 20% = <u>17</u>	<u>85</u>	= Total Cover																		
<b>Woody Vine Stratum (Plot size: _____)</b>																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum <u>15</u>																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 – Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: The hydrophytic vegetation criterion was met because there was greater than 50 percent dominance by FAC, FACW, and OBL species.																				

**SOIL**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 2/2	85	10YR 4/6	15	C	M	gr sa loam	
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	gr-gravelly
_____	_____	_____	_____	_____	_____	_____	_____	sa- sandy

<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, RC=Root Channel

<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>				<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>			
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 2 cm Muck (A10)		<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)		<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)			<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)		

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if present):</b>	
Type: <u>rocks</u>	
Depth (inches): <u>8</u>	
<b>Hydric Soils Present?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Remarks: The soil profile matches the description for indicator F6, Redox Dark Surface, because at least 4 of the upper 12 inches has a value less than 4 and chroma less than 3 and at least 5% distinct redoximorphic features.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>					
Primary Indicators (minimum of one required; check all that apply)			Secondary Indicators (2 or more required)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Water-Stained Leaves (B9)		
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)		<input type="checkbox"/> Drainage Patterns (B10)		
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)		<input type="checkbox"/> Dry-Season Water Table (C2)		
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)		<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)		
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)		<input checked="" type="checkbox"/> Geomorphic Position (D2)		
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)		<input type="checkbox"/> Shallow Aquitard (D3)		
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)		<input checked="" type="checkbox"/> FAC-Neutral Test (D5)		
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stresses Plants (D1) (LRR A)		<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)		
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)		<input type="checkbox"/> Frost-Heave Hummocks (D7)		
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)					
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)					

<b>Field Observations:</b>					
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____			
<b>Wetland Hydrology Present?</b>			Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Secondary indicators Geomorphic Position (D2) and FAC-Neutral (D5) were present, therefore wetland hydrology was present.

## APPENDIX C

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### WETLAND RATING FORMS FOR WESTERN WASHINGTON

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland A Date of site visit: 6/10/25

Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22

HGM Class used for rating Depressional Wetland has multiple HGM classes? X Y \_\_\_ N

**NOTE: Form is not complete without the required figures** (figures can be combined).

Source of base aerial photo/map Google Earth

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics)

### 1. Category of wetland based on FUNCTIONS

\_\_\_\_\_ Category I – Total score = 23 - 27

\_\_\_\_\_ Category II – Total score = 20 - 22

X Category III – Total score = 16 - 19

\_\_\_\_\_ Category IV – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <b>L</b>	H <b>M</b> L	H M <b>L</b>	
Landscape Potential	H <b>M</b> L	H <b>M</b> L	H <b>M</b> L	
Value	H <b>M</b> L	H M <b>L</b>	<b>H</b> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>16</b>

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

- 9 = H, H, H
- 8 = H, H, M
- 7 = H, H, L
- 7 = H, M, M
- 6 = H, M, L
- 6 = M, M, M
- 5 = H, L, L
- 5 = M, M, L
- 4 = M, L, L
- 3 = L, L, L

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland A

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

#### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	2, 12
Hydroperiods	D 1.4, H 1.2	2, 12
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	--
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	12
Map of the contributing basin	D 4.3, D 5.3	13
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	13
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	16

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

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

NO – go to 4

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

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

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

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland A

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

**NO – go to 6**

**YES – The wetland class is Riverine**

~~NOTE:~~ The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

Wetland A

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Water Quality Functions - Indicators that the site functions to improve water quality</b>		
<b>D 1.0. Does the site have the potential to improve water quality?</b>		
D 1.1. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 3 points = 2 points = 1 points = 1	<b>3</b>
D 1.2. <u>The soil 2 in. below the surface (or duff layer) is true clay or true organic (use NRCS definitions).</u> Yes = 4 No = 0		<b>0</b>
D 1.3. <u>Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</u> Wetland has persistent, ungrazed plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants ≥ 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	points = 5 points = 3 points = 1 points = 0	<b>0</b>
D 1.4. <u>Characteristics of seasonal ponding or inundation:</u> <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is ≥ ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	<b>0</b>
Total for D 1	Add the points in the boxes above	<b>3</b>

**Rating of Site Potential** If score is: 12-16 = H 6-11 = M X 0-5 = L *Record the rating on the first page*

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

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

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

**Rating of Value** If score is: 2-4 = H X 1 = M 0 = L *Record the rating on the first page*

Wetland A

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</b>		
<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b> Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream/ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (question 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0		<b>4</b>
<b>D 4.2. Depth of storage during wet periods:</b> Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0		<b>0</b>
<b>D 4.3. Contribution of the wetland to storage in the watershed:</b> Estimate the ratio of the area of upstream basin contributing surface water to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5		<b>3</b>
<b>Total for D 4</b>		<b>7</b>

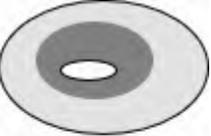
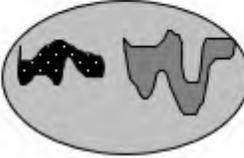
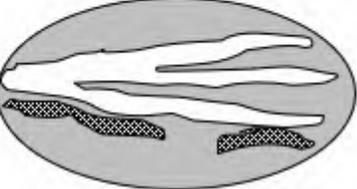
**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L *Record the rating on the first page*

<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b> Yes = 1 No = 0		<b>0</b>
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b> Yes = 1 No = 0		<b>1</b>
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)?</b> Yes = 1 No = 0		<b>1</b>
<b>Total for D 5</b>		<b>2</b>

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

<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. Is the unit in a landscape that has flooding problems?</b> Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): <ul style="list-style-type: none"> <li>• Flooding occurs in a sub-basin that is immediately downgradient of unit. points = 2</li> <li>• Surface flooding problems are in a sub-basin farther downgradient. points = 1</li> <li>• Flooding from groundwater is an issue in the sub-basin. points = 1</li> <li>• The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> <u>No outlet</u> points = 0</li> <li>• There are no problems with flooding downstream of the wetland. points = 0</li> </ul>		<b>0</b>
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b> Yes = 2 No = 0		<b>0</b>
<b>Total for D 6</b>		<b>0</b>

**Rating of Value** If score is:    2-4 = H    1 = M   X   0 = L *Record the rating on the first page*

<b>These questions apply to wetlands of all HGM classes.</b>	
<b>HABITAT FUNCTIONS - Indicators that site functions to provide important habitat</b>	
<b>H 1.0. Does the site have the potential to provide habitat?</b>	
<p>H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.</p> <p> <input type="checkbox"/> Aquatic bed <span style="float: right;">4 structures or more: points = 4</span>  <input checked="" type="checkbox"/> Emergent <span style="float: right;">3 structures: points = 2</span>  <input type="checkbox"/> Scrub-shrub (areas where shrubs have &gt; 30% cover) <span style="float: right;">2 structures: points = 1</span>  <input type="checkbox"/> Forested (areas where trees have &gt; 30% cover) <span style="float: right;">1 structure: points = 0</span>  <i>If the unit has a Forested class, check if:</i>  <input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon                 </p>	<b>0</b>
<p>H 1.2. Hydroperiods</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is &lt; 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).</p> <p> <input type="checkbox"/> Permanently flooded or inundated <span style="float: right;">4 or more types present: points = 3</span>  <input checked="" type="checkbox"/> Seasonally flooded or inundated <span style="float: right;">3 types present: points = 2</span>  <input type="checkbox"/> Occasionally flooded or inundated <span style="float: right;">2 types present: points = 1</span>  <input checked="" type="checkbox"/> Saturated only <span style="float: right;">1 type present: points = 0</span>  <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland  <input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland  <input type="checkbox"/> <b>Lake Fringe wetland</b> <span style="float: right;"><b>2 points</b></span>  <input type="checkbox"/> <b>Freshwater tidal wetland</b> <span style="float: right;"><b>2 points</b></span> </p>	<b>1</b>
<p>H 1.3. Richness of plant species</p> <p>Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. <b>Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle</b></p> <p>                     If you counted: &gt; 19 species <span style="float: right;">points = 2</span>                      5 - 19 species <span style="float: right;">points = 1</span>                      &lt; 5 species <span style="float: right;">points = 0</span> </p>	<b>1</b>
<p>H 1.4. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p><b>None = 0 points</b></p> </div> <div style="text-align: center;">  <p><b>Low = 1 point</b></p> </div> <div style="text-align: center;">   <p><b>Moderate = 2 points</b></p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>All three diagrams in this row are <b>High = 3 points</b></p>	<b>0</b>

Wetland A

<p>H 1.5. Special habitat features:          Check the habitat features that are present in the wetland. The number of checks is the number of points.  <input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).  <input checked="" type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)  <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)  <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		<b>2</b>
Total for H 1	Add the points in the boxes above	<b>4</b>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M X 0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2]<u>0.0</u> = <u>0.0%</u> Total accessible habitat is:            &gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span>            20-33% of 1 km Polygon <span style="float: right;">points = 2</span>            10-19% of 1 km Polygon <span style="float: right;">points = 1</span>            &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		<b>0</b>
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2]<u>27.1</u> = <u>50.5%</u>            Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span>            Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span>            Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span>            Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		<b>3</b>
<p>H 2.3. Land use intensity in 1 km Polygon:            &gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span>            ≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		<b>0</b>
Total for H 2	Add the points in the boxes above	<b>3</b>

**Rating of Landscape Potential** If score is: 4-6 = H X 1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i>            Site meets ANY of the following criteria: <span style="float: right;">points = 2</span>  <input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)  <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)  <input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species  <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data  <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan            Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span>            Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		<b>2</b>

**Rating of Value** If score is: X 2 = H 1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland A

**X Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats

— **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

**X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p>Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No – Go to <b>SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No = <b>Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    <b>No = Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)



## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland B Date of site visit: 6/10/25  
 Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22  
 HGM Class used for rating Depressional Wetland has multiple HGM classes? \_\_\_ Y X N

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

**OVERALL WETLAND CATEGORY III** (based on functions X or \_\_\_ special characteristics)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <u>L</u>	H <u>M</u> L	H M <u>L</u>	
Landscape Potential	H <u>M</u> L	H <u>M</u> L	H <u>M</u> L	
Value	H <u>M</u> L	H M <u>L</u>	<u>H</u> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>16</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland B

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

#### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	2, 12
Hydroperiods	D 1.4, H 1.2	2, 12
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	--
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	12
Map of the contributing basin	D 4.3, D 5.3	13
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	13
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	16

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

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

NO – go to 4

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

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

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

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland B

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

**NO – go to 6**

**YES – The wetland class is Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

Wetland B

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Water Quality Functions - Indicators that the site functions to improve water quality</b>		
<b>D 1.0. Does the site have the potential to improve water quality?</b>		
D 1.1. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 3 points = 2 points = 1 points = 1	<b>3</b>
D 1.2. <u>The soil 2 in. below the surface (or duff layer) is true clay or true organic (use NRCS definitions).</u> Yes = 4 No = 0		<b>0</b>
D 1.3. <u>Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</u> Wetland has persistent, ungrazed plants > 95% of area Wetland has persistent, ungrazed plants > ½ of area Wetland has persistent, ungrazed plants ≥ 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	points = 5 points = 3 points = 1 points = 0	<b>0</b>
D 1.4. <u>Characteristics of seasonal ponding or inundation:</u> <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is ≥ ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	points = 4 points = 2 points = 0	<b>0</b>
Total for D 1	Add the points in the boxes above	<b>3</b>

**Rating of Site Potential** If score is: 12-16 = H 6-11 = M X 0-5 = L *Record the rating on the first page*

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

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

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

**Rating of Value** If score is: 2-4 = H X 1 = M 0 = L *Record the rating on the first page*

Wetland B

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</b>		
<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b> Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream/ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (question 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0		<b>4</b>
<b>D 4.2. Depth of storage during wet periods:</b> Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0		<b>0</b>
<b>D 4.3. Contribution of the wetland to storage in the watershed:</b> Estimate the ratio of the area of upstream basin contributing surface water to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5		<b>3</b>
<b>Total for D 4</b>		<b>7</b>

**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L *Record the rating on the first page*

<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b> Yes = 1 No = 0		<b>0</b>
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b> Yes = 1 No = 0		<b>1</b>
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)?</b> Yes = 1 No = 0		<b>1</b>
<b>Total for D 5</b>		<b>2</b>

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

<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. Is the unit in a landscape that has flooding problems?</b> Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): <ul style="list-style-type: none"> <li>• Flooding occurs in a sub-basin that is immediately downgradient of unit. points = 2</li> <li>• Surface flooding problems are in a sub-basin farther downgradient. points = 1</li> <li>• Flooding from groundwater is an issue in the sub-basin. points = 1</li> <li>• The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why: <b>No Outlet</b></i> points = 0</li> <li>• There are no problems with flooding downstream of the wetland. points = 0</li> </ul>		<b>0</b>
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b> Yes = 2 No = 0		<b>0</b>
<b>Total for D 6</b>		<b>0</b>

**Rating of Value** If score is:    2-4 = H    1 = M   X   0 = L *Record the rating on the first page*

Wetland B

**These questions apply to wetlands of all HGM classes.**

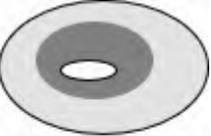
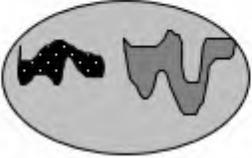
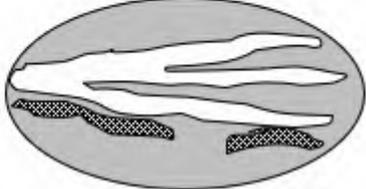
**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

<p>H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.</p> <p> <input type="checkbox"/> Aquatic bed <span style="float: right;">4 structures or more: points = 4</span>  <input type="checkbox"/> Emergent <span style="float: right;">3 structures: points = 2</span>  <input type="checkbox"/> Scrub-shrub (areas where shrubs have &gt; 30% cover) <span style="float: right;">2 structures: points = 1</span>  <input checked="" type="checkbox"/> Forested (areas where trees have &gt; 30% cover) <span style="float: right;">1 structure: points = 0</span> </p> <p><i>If the unit has a Forested class, check if:</i></p> <p> <input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon         </p>	<b>0</b>
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<p>H 1.2. Hydroperiods</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is &lt; 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).</p> <p> <input type="checkbox"/> Permanently flooded or inundated <span style="float: right;">4 or more types present: points = 3</span>  <input type="checkbox"/> Seasonally flooded or inundated <span style="float: right;">3 types present: points = 2</span>  <input type="checkbox"/> Occasionally flooded or inundated <span style="float: right;">2 types present: points = 1</span>  <input checked="" type="checkbox"/> Saturated only <span style="float: right;">1 type present: points = 0</span> </p> <p> <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland  <input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland  <input type="checkbox"/> <b>Lake Fringe wetland</b> <span style="float: right;"><b>2 points</b></span>  <input type="checkbox"/> <b>Freshwater tidal wetland</b> <span style="float: right;"><b>2 points</b></span> </p>	<b>0</b>
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<p>H 1.3. Richness of plant species</p> <p>Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. <b>Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle</b></p> <p>If you counted: &gt; 19 species <span style="float: right;">points = 2</span>          5 - 19 species <span style="float: right;">points = 1</span>          &lt; 5 species <span style="float: right;">points = 0</span></p>	<b>1</b>
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<p>H 1.4. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  <p><b>None = 0 points</b></p> </div> <div style="text-align: center;">  <p><b>Low = 1 point</b></p> </div> <div style="text-align: center;">  <p><b>Moderate = 2 points</b></p> </div> <div style="text-align: center;">  </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>All three diagrams in this row are <b>High = 3 points</b></p>	<b>0</b>
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## Wetland B

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>	<b>0</b>
<p>Total for H 1</p>	<p>Add the points in the boxes above</p> <p><b>1</b></p>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M X 0-6 = L

*Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>	
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2] <u>0.0</u> = <u>0.0</u>%</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2] <u>27.1</u> = <u>50.5</u>%</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>3</b>
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>Total for H 2</p>	<p>Add the points in the boxes above</p> <p><b>3</b></p>

**Rating of Landscape Potential** If score is: 4-6 = H X 1-3 = M < 1 = L

*Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>	
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><u>X</u> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>	<b>2</b>

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

*Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland B

**X Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats

— **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

**X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p>Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No – Go to <b>SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No = <b>Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    <b>No = Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland B

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    No = <b>Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    No = <b>Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p><b>Not Applicable</b></p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland C Date of site visit: 6/12/25  
 Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22  
 HGM Class used for rating Depressional Wetland has multiple HGM classes? \_\_\_ Y X N

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

**OVERALL WETLAND CATEGORY II** (based on functions X or special characteristics)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H (M) L (H) M L	H (M) L (H) M L	H (M) L (H) M L	(L)
Landscape Potential	H (M) L (H) M L	H (M) L (H) M L	H (M) L (H) M L	(L)
Value	(H) M L (H) M L	H M (L) (H) M L	(H) M L (H) M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>7</b>	<b>6</b>	<b>7</b>	<b>20</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland C

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

#### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	2, 12
Hydroperiods	D 1.4, H 1.2	2, 12
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	12
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	12
Map of the contributing basin	D 4.3, D 5.3	14
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	14
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	16

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

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

NO – go to 4

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

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

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

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland C

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

**NO – go to 6**

**YES – The wetland class is Riverine**

~~NOTE:~~ The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

Wetland C

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Water Quality Functions - Indicators that the site functions to improve water quality</b>		
<b>D 1.0. Does the site have the potential to improve water quality?</b>		
D 1.1. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). <span style="float: right;">points = 3</span> Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. <span style="float: right;">points = 2</span> Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing <span style="float: right;">points = 1</span> Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. <span style="float: right;">points = 1</span>	<b>2</b>	
D 1.2. <u>The soil 2 in. below the surface (or duff layer) is true clay or true organic (use NRCS definitions).</u> Yes = 4 No = 0	<b>0</b>	
D 1.3. <u>Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</u> Wetland has persistent, ungrazed plants > 95% of area <span style="float: right;">points = 5</span> Wetland has persistent, ungrazed plants > ½ of area <span style="float: right;">points = 3</span> Wetland has persistent, ungrazed plants ≥ 1/10 of area <span style="float: right;">points = 1</span> Wetland has persistent, ungrazed plants < 1/10 of area <span style="float: right;">points = 0</span>	<b>5</b>	
D 1.4. <u>Characteristics of seasonal ponding or inundation:</u> <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > ½ total area of wetland <span style="float: right;">points = 4</span> Area seasonally ponded is ≥ ¼ total area of wetland <span style="float: right;">points = 2</span> Area seasonally ponded is < ¼ total area of wetland <span style="float: right;">points = 0</span>	<b>0</b>	
<b>Total for D 1</b>	<b>Add the points in the boxes above</b>	<b>7</b>

**Rating of Site Potential** If score is:     12-16 = H   X   6-11 = M     0-5 = L *Record the rating on the first page*

<b>D 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
D 2.1. Does the wetland unit receive stormwater discharges? <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? <span style="float: right;">Yes = 1 No = 0</span>	<b>1</b>	
D 2.3. Are there septic systems within 250 ft of the wetland? <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source _____ <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
<b>Total for D 2</b>	<b>Add the points in the boxes above</b>	<b>1</b>

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

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

**Rating of Value** If score is:   X   2-4 = H    1 = M     0 = L *Record the rating on the first page*

Wetland C

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</b>		
<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b> Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream/ditch, OR highly constricted permanently flowing outlet points = 2 Wetland is a flat depression (question 7 on key), whose outlet is a permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0		<b>2</b>
<b>D 4.2. Depth of storage during wet periods:</b> Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part. Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5 Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3 The wetland is a "headwater" wetland points = 3 Wetland is flat but has small depressions on the surface that trap water points = 1 Marks of ponding less than 0.5 ft (6 in) points = 0		<b>5</b>
<b>D 4.3. Contribution of the wetland to storage in the watershed:</b> Estimate the ratio of the area of upstream basin contributing surface water to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit points = 5 The area of the basin is 10 to 100 times the area of the unit points = 3 The area of the basin is more than 100 times the area of the unit points = 0 Entire wetland is in the Flats class points = 5		<b>5</b>
<b>Total for D 4</b>		<b>12</b> Add the points in the boxes above

**Rating of Site Potential** If score is: X 12-16 = H \_\_\_ 6-11 = M \_\_\_ 0-5 = L *Record the rating on the first page*

<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b> Yes = 1 No = 0		<b>0</b>
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b> Yes = 1 No = 0		<b>1</b>
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)?</b> Yes = 1 No = 0		<b>0</b>
<b>Total for D 5</b>		<b>1</b> Add the points in the boxes above

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

<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. Is the unit in a landscape that has flooding problems?</b> Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u> The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds): <ul style="list-style-type: none"> <li>• Flooding occurs in a sub-basin that is immediately downgradient of unit. points = 2</li> <li>• Surface flooding problems are in a sub-basin farther downgradient. points = 1</li> <li>• Flooding from groundwater is an issue in the sub-basin. points = 1</li> <li>• The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why</i> _____ points = 0</li> <li>• There are no problems with flooding downstream of the wetland. points = 0</li> </ul>		<b>0</b>
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b> Yes = 2 No = 0		<b>0</b>
<b>Total for D 6</b>		<b>0</b> Add the points in the boxes above

**Rating of Value** If score is: \_\_\_ 2-4 = H \_\_\_ 1 = M X 0 = L *Record the rating on the first page*

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	
<input checked="" type="checkbox"/> Emergent	3 structures: points = 2	<b>1</b>
<input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input checked="" type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	<b>1</b>
<input checked="" type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input type="checkbox"/> Saturated only	1 type present: points = 0	
<input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	<b>1</b>
5 - 19 species	points = 1	
< 5 species	points = 0	

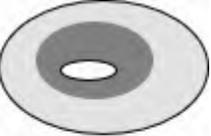
H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



**None = 0 points**

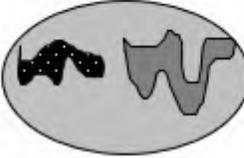


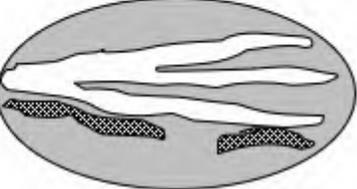
**Low = 1 point**

**Moderate = 2 points**

All three diagrams in this row are **High = 3 points**





Wetland C

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>	1
<p>Total for H 1</p>	<p>Add the points in the boxes above</p> <p><b>5</b></p>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M X 0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>	
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>22</u> + [(% moderate and low intensity land uses)/2] <u>4.9</u> = <u>26.9</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	2
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>26.5</u> + [(% moderate and low intensity land uses)/2] <u>20.4</u> = <u>46.9</u>%</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	2
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>	0
<p>Total for H 2</p>	<p>Add the points in the boxes above</p> <p><b>4</b></p>

**Rating of Landscape Potential** If score is: X 4-6 = H 1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>	
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>	2

**Rating of Value** If score is: X 2 = H 1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- X** **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland C

**X** **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats

— **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

**X** **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<p><i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i></p>	
<p><b>SC 1.0. Estuarine wetlands</b>                      Does the wetland meet the following criteria for Estuarine wetlands?                      — The dominant water regime is tidal,                      — Vegetated, and                      — With a salinity greater than 0.5 ppt</p>	
<p>Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p>	<p><b>Cat. I</b></p>
<p>Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p> <p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?                      — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.                      — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.                      — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p>	<p><b>Cat. I</b>  <b>Cat. II</b></p>
<p>Yes = <b>Category I</b>    No = <b>Category II</b></p> <p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b>                      SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup>                      Yes = <b>Category I</b>    No – Go to <b>SC 2.2</b>                      SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.                      Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b>                      SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?                      Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 3.0. Bogs</b>                      Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i>                      SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?                      Yes – Go to <b>SC 3.3</b>    No – Go to <b>SC 3.2</b>                      SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?                      Yes – Go to <b>SC 3.3</b>    No = <b>Not a bog</b>                      SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?                      Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b>  <b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.                      SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?                      Yes = <b>Category I bog</b>    <b>No = Not a bog</b></p>	<p><b>Cat. I</b></p>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland C

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    No = <b>Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    No = <b>Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p><b>Not Applicable</b></p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland D Date of site visit: 6/12/25  
 Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22  
 HGM Class used for rating Depressional Wetland has multiple HGM classes? \_\_\_ Y X N

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

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <u>L</u>	H <u>M</u> L	H M <u>L</u>	
Landscape Potential	H <u>M</u> L	H <u>M</u> L	H <u>M</u> L	
Value	H <u>M</u> L	H M <u>L</u>	<u>H</u> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>16</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland D

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

#### Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	2, 12
Hydroperiods	D 1.4, H 1.2	2, 12
Location of outlet ( <i>can be added to map of hydroperiods</i> )	D 1.1, D 4.1	--
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	D 2.2, D 5.2	12
Map of the contributing basin	D 4.3, D 5.3	13
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	13
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	16

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

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

NO – go to 4

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

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

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

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland D

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

**NO – go to 6**

**YES – The wetland class is Riverine**

~~NOTE:~~ The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

Wetland D

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Water Quality Functions - Indicators that the site functions to improve water quality</b>		
<b>D 1.0. Does the site have the potential to improve water quality?</b>		
D 1.1. <u>Characteristics of surface water outflows from the wetland:</u> Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). <span style="float: right;">points = 3</span> Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. <span style="float: right;">points = 2</span> Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing <span style="float: right;">points = 1</span> Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. <span style="float: right;">points = 1</span>	<b>3</b>	
D 1.2. <u>The soil 2 in. below the surface (or duff layer) is true clay or true organic (use NRCS definitions).</u> Yes = 4 No = 0	<b>0</b>	
D 1.3. <u>Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):</u> Wetland has persistent, ungrazed plants > 95% of area <span style="float: right;">points = 5</span> Wetland has persistent, ungrazed plants > ½ of area <span style="float: right;">points = 3</span> Wetland has persistent, ungrazed plants ≥ 1/10 of area <span style="float: right;">points = 1</span> Wetland has persistent, ungrazed plants < 1/10 of area <span style="float: right;">points = 0</span>	<b>0</b>	
D 1.4. <u>Characteristics of seasonal ponding or inundation:</u> <i>This is the area that is ponded for at least 2 months. See description in manual.</i> Area seasonally ponded is > ½ total area of wetland <span style="float: right;">points = 4</span> Area seasonally ponded is ≥ ¼ total area of wetland <span style="float: right;">points = 2</span> Area seasonally ponded is < ¼ total area of wetland <span style="float: right;">points = 0</span>	<b>0</b>	
Total for D 1	Add the points in the boxes above	<b>3</b>

**Rating of Site Potential** If score is: 12-16 = H 6-11 = M X 0-5 = L *Record the rating on the first page*

<b>D 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
D 2.1. Does the wetland unit receive stormwater discharges? <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? <span style="float: right;">Yes = 1 No = 0</span>	<b>1</b>	
D 2.3. Are there septic systems within 250 ft of the wetland? <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1-D 2.3? Source _____ <span style="float: right;">Yes = 1 No = 0</span>	<b>0</b>	
Total for D 2	Add the points in the boxes above	<b>1</b>

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

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

**Rating of Value** If score is: 2-4 = H X 1 = M 0 = L *Record the rating on the first page*

Wetland D

<b>DEPRESSIONAL AND FLATS WETLANDS</b>		
<b>Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation</b>		
<b>D 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>D 4.1. Characteristics of surface water outflows from the wetland:</b>		<b>4</b>
Wetland is a depression or flat depression with no surface water leaving it (no outlet)	points = 4	
Wetland has an intermittently flowing stream/ditch, OR highly constricted permanently flowing outlet	points = 2	
Wetland is a flat depression (question 7 on key), whose outlet is a permanently flowing ditch	points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing	points = 0	
<b>D 4.2. Depth of storage during wet periods:</b> Estimate the height of ponding above the bottom of the outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.		<b>3</b>
Marks of ponding are 3 ft or more above the surface or bottom of outlet	points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet	points = 5	
Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet	points = 3	
The wetland is a "headwater" wetland	points = 3	
Wetland is flat but has small depressions on the surface that trap water	points = 1	
Marks of ponding less than 0.5 ft (6 in)	points = 0	
<b>D 4.3. Contribution of the wetland to storage in the watershed:</b> Estimate the ratio of the area of upstream basin contributing surface water to the area of the wetland unit itself.		<b>3</b>
The area of the basin is less than 10 times the area of the unit	points = 5	
The area of the basin is 10 to 100 times the area of the unit	points = 3	
The area of the basin is more than 100 times the area of the unit	points = 0	
Entire wetland is in the Flats class	points = 5	
<b>Total for D 4</b>	Add the points in the boxes above	<b>10</b>

**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L *Record the rating on the first page*

<b>D 5.0. Does the landscape have the potential to support hydrologic functions of the site?</b>		
<b>D 5.1. Does the wetland receive stormwater discharges?</b>	Yes = 1 No = 0	<b>0</b>
<b>D 5.2. Is &gt;10% of the area within 150 ft of the wetland in land uses that generate excess runoff?</b>	Yes = 1 No = 0	<b>1</b>
<b>D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at &gt;1 residence/ac, urban, commercial, agriculture, etc.)?</b>	Yes = 1 No = 0	<b>1</b>
<b>Total for D 5</b>	Add the points in the boxes above	<b>2</b>

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

<b>D 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>D 6.1. Is the unit in a landscape that has flooding problems?</b> Choose the description that best matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest score if more than one condition is met.</u>		<b>0</b>
The wetland captures surface water that would otherwise flow downgradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):		
• Flooding occurs in a sub-basin that is immediately downgradient of unit.	points = 2	
• Surface flooding problems are in a sub-basin farther downgradient.	points = 1	
• Flooding from groundwater is an issue in the sub-basin.	points = 1	
• The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. <i>Explain why: <b>No outlet</b></i>	points = 0	
• There are no problems with flooding downstream of the wetland.	points = 0	
<b>D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b>		<b>0</b>
	Yes = 2 No = 0	
<b>Total for D 6</b>	Add the points in the boxes above	<b>0</b>

**Rating of Value** If score is:    2-4 = H    1 = M   X   0 = L *Record the rating on the first page*

Wetland D

**These questions apply to wetlands of all HGM classes.**

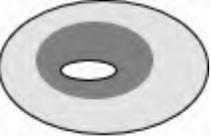
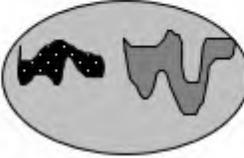
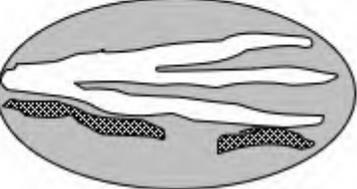
**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

H 1.0. Does the site have the potential to provide habitat?

<p>H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.</p> <p> <input type="checkbox"/> Aquatic bed <span style="float: right;">4 structures or more: points = 4</span>  <input type="checkbox"/> Emergent <span style="float: right;">3 structures: points = 2</span>  <input type="checkbox"/> Scrub-shrub (areas where shrubs have &gt; 30% cover) <span style="float: right;">2 structures: points = 1</span>  <input checked="" type="checkbox"/> Forested (areas where trees have &gt; 30% cover) <span style="float: right;">1 structure: points = 0</span> </p> <p><i>If the unit has a Forested class, check if:</i></p> <p><input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon</p>	<b>0</b>
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<p>H 1.2. Hydroperiods</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is &lt; 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).</p> <p> <input type="checkbox"/> Permanently flooded or inundated <span style="float: right;">4 or more types present: points = 3</span>  <input checked="" type="checkbox"/> Seasonally flooded or inundated <span style="float: right;">3 types present: points = 2</span>  <input type="checkbox"/> Occasionally flooded or inundated <span style="float: right;">2 types present: points = 1</span>  <input checked="" type="checkbox"/> Saturated only <span style="float: right;">1 type present: points = 0</span> </p> <p> <input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland  <input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland         </p> <p> <input type="checkbox"/> <b>Lake Fringe wetland</b> <span style="float: right;"><b>2 points</b></span>  <input type="checkbox"/> <b>Freshwater tidal wetland</b> <span style="float: right;"><b>2 points</b></span> </p>	<b>1</b>
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<p>H 1.3. Richness of plant species</p> <p>Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. <b>Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle</b></p> <p>If you counted: &gt; 19 species <span style="float: right;">points = 2</span>          5 - 19 species <span style="float: right;">points = 1</span>          &lt; 5 species <span style="float: right;">points = 0</span></p>	<b>1</b>
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<p>H 1.4. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  <p><b>None = 0 points</b></p> </div> <div style="text-align: center;">  <p><b>Low = 1 point</b></p> </div> <div style="text-align: center;">   <p><b>Moderate = 2 points</b></p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>All three diagrams in this row are <b>High = 3 points</b></p>	<b>0</b>
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Wetland D

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input checked="" type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input checked="" type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>	<b>3</b>
<p>Total for H 1</p>	<p>Add the points in the boxes above</p> <p><b>5</b></p>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M  0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>	
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2] <u>0.0</u> = <u>0.0</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2] <u>27.1</u> = <u>50.5</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>3</b>
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>Total for H 2</p>	<p>Add the points in the boxes above</p> <p><b>3</b></p>

**Rating of Landscape Potential** If score is: 4-6 = H  1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>	
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>	<b>2</b>

**Rating of Value** If score is:  2 = H 1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland D

- X Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No – Go to <b>SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    No = <b>Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    <b>No = Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland D

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    No = <b>Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    No = <b>Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p><b>Not Applicable</b></p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland E Date of site visit: 6/12/25  
 Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22  
 HGM Class used for rating Slope Wetland has multiple HGM classes? \_\_\_ Y X \_\_\_ N

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

### OVERALL WETLAND CATEGORY IV (based on functions X or \_\_\_ special characteristics)

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

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <u>L</u>	H M <u>L</u>	H M <u>L</u>	
Landscape Potential	H <u>M</u> L	H <u>M</u> L	H <u>M</u> L	
Value	H <u>M</u> L	H M <u>L</u>	H M <u>L</u>	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>5</b>	<b>4</b>	<b>4</b>	<b>13</b>

#### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland E

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

#### Depressional Wetlands

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

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	<b>2, 12</b>
Hydroperiods	H 1.2	<b>2, 12</b>
Plant cover of <b>dense</b> trees, shrubs, and herbaceous plants	S 1.3	<b>2, 12</b>
Plant cover of <b>dense, rigid</b> trees, shrubs, and herbaceous plants ( <i>can be added to figure above</i> )	S 4.1	<b>2, 12</b>
Boundary of 150 ft buffer ( <i>can be added to another figure</i> )	S 2.1, S 5.1	<b>12</b>
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	<b>13</b>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	<b>16</b>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	<b>16</b>

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

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

NO – go to 4

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

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

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

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland E

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES** – The wetland class is **Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES** – The wetland class is **Depressional**

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

NO – go to 8

**YES** – The wetland class is **Depressional**

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

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

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

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

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

Wetland E

**SLOPE WETLANDS**  
**Hydrologic Functions** – Indicators that the site functions to reduce flooding and stream erosion

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

**Rating of Site Potential** If score is:   1 = M   X   0 = L

*Record the rating on the first page*

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

**Rating of Landscape Potential** If score is:   X   1 = M   0 = L

*Record the rating on the first page*

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

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

*Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	<b>0</b>
<input checked="" type="checkbox"/> Emergent	3 structures: points = 2	
<input type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	<b>0</b>
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	
<input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	<b>1</b>
5 - 19 species	points = 1	
< 5 species	points = 0	

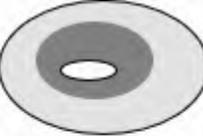
H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



**None = 0 points**

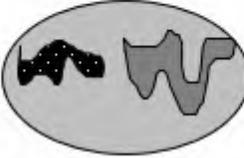


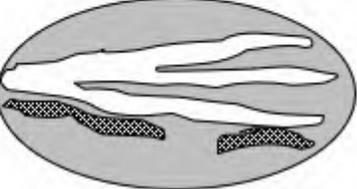
**Low = 1 point**

**Moderate = 2 points**

All three diagrams in this row are **High = 3 points**





Wetland E

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>	<b>1</b>
<p>Total for H 1</p>	<p>Add the points in the boxes above</p> <p><b>2</b></p>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M  0-6 = L *Record the rating on the first page*

<p>H 2.0. Does the landscape have the potential to support the habitat functions of the site?</p>	
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2] <u>0.0</u> = <u>0.0</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2] <u>27.1</u> = <u>50.5</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>	<b>3</b>
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>	<b>0</b>
<p>Total for H 2</p>	<p>Add the points in the boxes above</p> <p><b>3</b></p>

**Rating of Landscape Potential** If score is:  4-6 = H  1-3 = M < 1 = L *Record the rating on the first page*

<p>H 3.0. Is the habitat provided by the site valuable to society?</p>	
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>	<b>0</b>

**Rating of Value** If score is: 2 = H 1 = M  0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>  
Wetland Rating System for Western WA: 2014 Update  
Rating Form – Version 2, July 2023

## Wetland E

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- **Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No – Go to SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No – Go to SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No = Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No = <b>Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland E

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    <b>No = Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland U Date of site visit: 6/12/2025  
 Rated by O. Mallett Trained by Ecology? X Yes \_\_\_ No \_\_\_ Date of training 10/2023  
 HGM Class used for rating Riverine Wetland has multiple HGM classes? X Y \_\_\_ N \_\_\_

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

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics\_\_\_)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H <u>M</u> L	<u>H</u> M L	H M <u>L</u>	
Landscape Potential	<u>H</u> M L	H <u>M</u> L	H <u>M</u> L	
Value	H <u>M</u> L	H M <u>L</u>	<u>H</u> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>19</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland U

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

#### Depressional Wetlands

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

#### Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 12
Hydroperiods	H 1.2	2, 12
Ponded depressions	R 1.1	15
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	R 2.4	12
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	12
Width of unit vs. width of stream ( <i>can be added to another figure</i> )	R 4.1	12
Map of the contributing basin	R 2.2, R 2.3, R 5.2	15
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	15
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	16

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

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

NO – go to 4

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

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

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

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland U

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES – The wetland class is Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

### RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

#### Water Quality Functions - Indicators that the site functions to improve water quality

<b>R 1.0. Does the site have the potential to improve water quality?</b>		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover $>3/4$ area of wetland	points = 8	0
Depressions cover $>1/2$ area of wetland	points = 4	
Depressions present but cover $\leq 1/2$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with $>90\%$ cover at person height, <b>not</b> Cowardin classes)		
Trees or shrubs $>2/3$ area of the wetland	points = 8	8
Trees or shrubs $>1/3$ area of the wetland	points = 6	
Herbaceous plants ( $>6$ in. high) $>2/3$ area of the wetland	points = 6	
Herbaceous plants ( $>6$ in. high) $>1/3$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $<1/3$ area of the wetland	points = 0	
<b>Total for R 1</b>	<b>Add the points in the boxes above</b>	<b>8</b>

**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L

*Record the rating on the first page*

<b>R 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	1
R 2.4. Is $>10\%$ of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4? Other sources : _____	Yes = 1 No = 0	0
<b>Total for R 2</b>	<b>Add the points in the boxes above</b>	<b>5</b>

**Rating of Landscape Potential** If score is:   X   3-6 = H    1 or 2 = M    0 = L

*Record the rating on the first page*

<b>R 3.0. Is the water quality improvement provided by the site valuable to society?</b>		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (Answer YES if there is a TMDL in development or in effect for the drainage in which the unit is found.) Yes = 2 No = 0		1
<b>Total for R 3</b>	<b>Add the points in the boxes above</b>	<b>1</b>

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

*Record the rating on the first page*

<b>RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS</b>		
<b>Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion</b>		
<b>R 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
<b>R 4.1. Characteristics of the overbank storage the wetland provides:</b> Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks). If the ratio is more than 20 <span style="float: right;">points = 9</span> If the ratio is 10-20 <span style="float: right;">points = 6</span> If the ratio is 5-<10 <span style="float: right;">points = 4</span> If the ratio is 1-<5 <span style="float: right;">points = 2</span> If the ratio is < 1 <span style="float: right;">points = 1</span>	<b>6</b>	
<b>R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have &gt;90% cover at person height. These are <u>NOT</u> Cowardin classes).</b> Forest or shrub for > <sup>1</sup> / <sub>3</sub> area OR emergent plants > <sup>2</sup> / <sub>3</sub> area <span style="float: right;">points = 7</span> Forest or shrub for > <sup>1</sup> / <sub>10</sub> area OR emergent plants > <sup>1</sup> / <sub>3</sub> area <span style="float: right;">points = 4</span> Plants do not meet above criteria <span style="float: right;">points = 0</span>	<b>7</b>	
<b>Total for R 4</b>	<b>Add the points in the boxes above</b>	<b>13</b>

**Rating of Site Potential** If score is: X 12-16 = H \_\_\_ 6-11 = M \_\_\_ 0-5 = L *Record the rating on the first page*

<b>R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?</b>		
<b>R 5.1. Is the stream or river adjacent to the wetland downcut?</b>	Yes = 0 No = 1	<b>0</b>
<b>R 5.2. Does the upgradient watershed include a UGA or incorporated area?</b>	Yes = 1 No = 0	<b>1</b>
<b>R 5.3. Is the upgradient stream or river controlled by dams?</b>	Yes = 0 No = 1	<b>0</b>
<b>Total for R 5</b>	<b>Add the points in the boxes above</b>	<b>1</b>

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

<b>R 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
<b>R 6.1. Distance to the nearest areas downstream that have flooding problems?</b> Choose the description that best fits the site. The sub-basin immediately downgradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) <span style="float: right;">points = 2</span> Surface flooding problems are in a sub-basin farther downgradient <span style="float: right;">points = 1</span> No flooding problems anywhere downstream <span style="float: right;">points = 0</span>	<b>0</b>	
<b>R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?</b>	Yes = 2 No = 0	<b>0</b>
<b>Total for R 6</b>	<b>Add the points in the boxes above</b>	<b>0</b>

**Rating of Value** If score is: \_\_\_ 2-4 = H \_\_\_ 1 = M X 0 = L *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	
<input type="checkbox"/> Emergent	3 structures: points = 2	
<input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	1
<input checked="" type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	

*If the unit has a Forested class, check if:*

The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon

H 1.2. Hydroperiods

Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	1
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	

Permanently flowing stream or river in, or adjacent to, the wetland

Intermittently or seasonally flowing stream in, or adjacent to, the wetland

**Lake Fringe wetland** **2 points**

**Freshwater tidal wetland** **2 points**

H 1.3. Richness of plant species

Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species points = 2

5 - 19 species points = 1

< 5 species points = 0

1

H 1.4. Interspersion of habitats

Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



**None = 0 points**



**Low = 1 point**

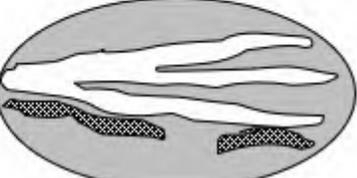


**Moderate = 2 points**









All three diagrams in this row are **High = 3 points**

2

## Wetland U

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		1
Total for H 1	Add the points in the boxes above	6

**Rating of Site Potential** If score is:  15-18 = H  7-14 = M  0-6 = L

*Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>3.2</u> + [(% moderate and low intensity land uses)/2] <u>12.2</u> = <u>15.4</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>16.1</u> + [(% moderate and low intensity land uses)/2] <u>30.7</u> = <u>46.8</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		2
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	3

**Rating of Landscape Potential** If score is:  4-6 = H  1-3 = M  < 1 = L

*Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		2

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

*Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- X** **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland U

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No – Go to SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No – Go to SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No = Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No = <b>Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

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<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    <b>No = Not an interdunal wetland for rating</b></p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland V Date of site visit: 6/12/25  
 Rated by Sara Hastings Trained by Ecology? X Yes \_\_\_ No Date of training 6/22  
 HGM Class used for rating Slope Wetland has multiple HGM classes? \_\_\_ Y X \_\_\_ N

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

**OVERALL WETLAND CATEGORY IV** (based on functions X or \_\_\_ special characteristics)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <u>L</u>	H M <u>L</u>	H M <u>L</u>	
Landscape Potential	H <u>M</u> L	H <u>M</u> L	H <u>M</u> L	
Value	H <u>M</u> L	H M <u>L</u>	H <u>M</u> L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	<b>5</b>	<b>4</b>	<b>5</b>	<b>14</b>

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland V

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

#### Depressional Wetlands

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

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	<b>2, 12</b>
Hydroperiods	H 1.2	<b>2, 12</b>
Plant cover of <b>dense</b> trees, shrubs, and herbaceous plants	S 1.3	<b>2, 12</b>
Plant cover of <b>dense, rigid</b> trees, shrubs, and herbaceous plants ( <i>can be added to figure above</i> )	S 4.1	<b>2, 12</b>
Boundary of 150 ft buffer ( <i>can be added to another figure</i> )	S 2.1, S 5.1	<b>12</b>
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	<b>13</b>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	<b>16</b>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	<b>16</b>

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

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

NO – go to 4

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

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

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

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland V

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES** – The wetland class is **Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES** – The wetland class is **Depressional**

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

NO – go to 8

**YES** – The wetland class is **Depressional**

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

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

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

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

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

**Rating of Site Potential** If score is:   12 = H   6-11 = M   X  0-5 = L *Record the rating on the first page*

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

**Rating of Landscape Potential** If score is:   X  1-2 = M   0 = L *Record the rating on the first page*

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

**Rating of Value** If score is:   2-4 = H   X  1 = M   0 = L *Record the rating on the first page*

Wetland V

**SLOPE WETLANDS**  
**Hydrologic Functions – Indicators that the site functions to reduce flooding and stream erosion**

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

**Rating of Site Potential** If score is:   1 = M **X**   0 = L *Record the rating on the first page*

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

**Rating of Landscape Potential** If score is: **X**   1 = M   0 = L *Record the rating on the first page*

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

**Rating of Value** If score is:   2-4 = H   1 = M **X**   0 = L *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	<b>0</b>
<input checked="" type="checkbox"/> Emergent	3 structures: points = 2	
<input type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	<b>0</b>
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	
<input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	<b>1</b>
5 - 19 species	points = 1	
< 5 species	points = 0	

H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



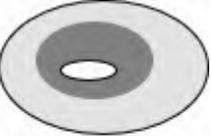
**None = 0 points**

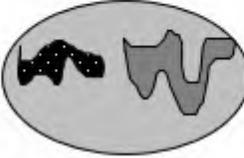


**Low = 1 point**

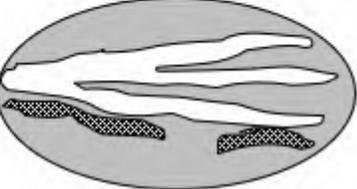


**Moderate = 2 points**









All three diagrams in this row are **High = 3 points**

**0**

Wetland V

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		<b>1</b>
Total for H 1	Add the points in the boxes above	<b>2</b>

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M  0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2] <u>0.0</u> = <u>0.0</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		<b>0</b>
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2] <u>27.1</u> = <u>50.5</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		<b>3</b>
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		<b>0</b>
Total for H 2	Add the points in the boxes above	<b>3</b>

**Rating of Landscape Potential** If score is: 4-6 = H  1-3 = M < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p><input checked="" type="checkbox"/> Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		<b>1</b>

**Rating of Value** If score is: 2 = H  1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland V

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No – Go to SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No – Go to SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No = Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No = <b>Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland V

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    <b>No = Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland W Date of site visit: 6/12/2025  
 Rated by O. Mallett Trained by Ecology? X Yes    No Date of training 10/2023  
 HGM Class used for rating Slope Wetland has multiple HGM classes?    Y X    N

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

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics   )

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <b>L</b>	H M <b>L</b>	H M <b>L</b>	
Landscape Potential	H <b>M</b> L	H <b>M</b> L	H <b>M</b> L	
Value	<b>H</b> M L	H M <b>L</b>	<b>H</b> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	6	4	6	16

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland W

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

#### Depressional Wetlands

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

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	<b>2, 12</b>
Hydroperiods	H 1.2	<b>2, 12</b>
Plant cover of <b>dense</b> trees, shrubs, and herbaceous plants	S 1.3	<b>2, 12</b>
Plant cover of <b>dense, rigid</b> trees, shrubs, and herbaceous plants ( <i>can be added to figure above</i> )	S 4.1	<b>2, 12</b>
Boundary of 150 ft buffer ( <i>can be added to another figure</i> )	S 2.1, S 5.1	<b>12</b>
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	<b>15</b>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	<b>16</b>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	<b>16</b>

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

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

NO – go to 4

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

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

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

The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

The water leaves the wetland **without being impounded**.

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland W

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES – The wetland class is Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

**SLOPE WETLANDS**  
**Hydrologic Functions – Indicators that the site functions to reduce flooding and stream erosion**

<b>S 4.0. Does the site have the potential to reduce flooding and stream erosion?</b>	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows. Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland <span style="float: right;">points = 1</span> All other conditions <span style="float: right;">points = 0</span>	0

**Rating of Site Potential** If score is:   1 = M   X   0 = L *Record the rating on the first page*

<b>S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?</b>	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? <span style="float: right;">Yes = 1 No = 0</span>	1

**Rating of Landscape Potential** If score is:   X   1 = M   0 = L *Record the rating on the first page*

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

**Rating of Value** If score is:   2-4 = H   1 = M   X   0 = L *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	0
<input checked="" type="checkbox"/> Emergent	3 structures: points = 2	
<input type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	0
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	
<input checked="" type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	1
5 - 19 species	points = 1	
< 5 species	points = 0	

H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



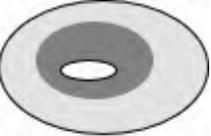
**None = 0 points**

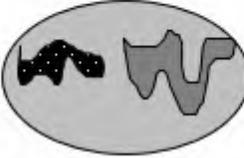


**Low = 1 point**

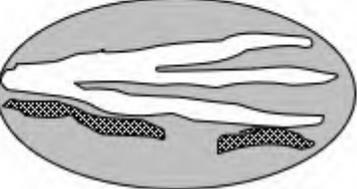


**Moderate = 2 points**









All three diagrams in this row are **High = 3 points**

Wetland W

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		2
Total for H 1	Add the points in the boxes above	3

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M X 0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>3.2</u> + [(% moderate and low intensity land uses)/2] <u>12.2</u> = <u>15.4</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>16.1</u> + [(% moderate and low intensity land uses)/2] <u>30.7</u> = <u>46.8</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	2

**Rating of Landscape Potential** If score is: 4-6 = H X 1-3 = M < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		2

**Rating of Value** If score is: X 2 = H 1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- X** **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland W

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No – Go to SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No – Go to SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No = Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No = <b>Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland W

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    <b>No = Not an interdunal wetland for rating</b></p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland X Date of site visit: 6/12/2025  
 Rated by O. Mallett Trained by Ecology? X Yes    No Date of training 10/2023  
 HGM Class used for rating Slope Wetland has multiple HGM classes?    Y X    N

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

**OVERALL WETLAND CATEGORY IV** (based on functions X or special characteristics   )

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H M <b>L</b>	H M <b>L</b>	H M <b>L</b>	
Landscape Potential	H <b>M</b> L	H <b>M</b> L	H <b>M</b> L	
Value	<b>H</b> M L	H M <b>L</b>	H <b>M</b> L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	6	4	5	15

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland X

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

#### Depressional Wetlands

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

#### Riverine Wetlands

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

#### Lake Fringe Wetlands

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

#### Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	<b>2, 12</b>
Hydroperiods	H 1.2	<b>2, 12</b>
Plant cover of <b>dense</b> trees, shrubs, and herbaceous plants	S 1.3	<b>2, 12</b>
Plant cover of <b>dense, rigid</b> trees, shrubs, and herbaceous plants ( <i>can be added to figure above</i> )	S 4.1	<b>2, 12</b>
Boundary of 150 ft buffer ( <i>can be added to another figure</i> )	S 2.1, S 5.1	<b>12</b>
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	<b>13</b>
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	<b>16</b>
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	<b>16</b>

## HGM Classification of Wetlands in Western Washington

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

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

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

NO – go to 2

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

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

NO – **Saltwater Tidal Fringe (Estuarine)**

YES – **Freshwater Tidal Fringe**

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

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

NO – go to 3

YES – The wetland class is **Flats**

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

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

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

NO – go to 4

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

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

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

NO – go to 5

YES – The wetland class is **Slope**

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

Wetland X

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES** – The wetland class is **Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES** – The wetland class is **Depressional**

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

NO – go to 8

**YES** – The wetland class is **Depressional**

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

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

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

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

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

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

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

*Record the rating on the first page*

**SLOPE WETLANDS**  
**Hydrologic Functions – Indicators that the site functions to reduce flooding and stream erosion**

<b>S 4.0. Does the site have the potential to reduce flooding and stream erosion?</b>	
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. Stems of plants should be thick enough (usually > 1/8 in), or dense enough, to remain erect during surface flows. Dense, uncut, <b>rigid</b> plants cover > 90% of the area of the wetland <span style="float: right;">points = 1</span> All other conditions <span style="float: right;">points = 0</span>	0

**Rating of Site Potential** If score is:   1 = M   X   0 = L *Record the rating on the first page*

<b>S 5.0. Does the landscape have the potential to support the hydrologic functions of the site?</b>	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land uses or cover that generate excess surface runoff? <span style="float: right;">Yes = 1 No = 0</span>	1

**Rating of Landscape Potential** If score is:   X   1 = M   0 = L *Record the rating on the first page*

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

**Rating of Value** If score is:   2-4 = H   1 = M   X   0 = L *Record the rating on the first page*

NOTES and FIELD OBSERVATIONS:

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	0
<input checked="" type="checkbox"/> Emergent	3 structures: points = 2	
<input type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	0
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	
<input type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input checked="" type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	1
5 - 19 species	points = 1	
< 5 species	points = 0	

H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



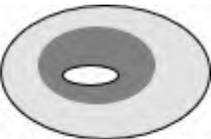
**None = 0 points**



**Low = 1 point**

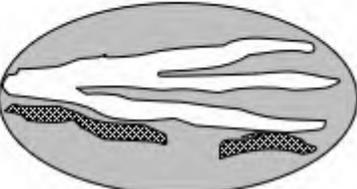


**Moderate = 2 points**









All three diagrams in this row are **High = 3 points**

Wetland X

<p>H 1.5. Special habitat features:</p> <p>Check the habitat features that are present in the wetland. The number of checks is the number of points.</p> <p><input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).</p> <p><input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland</p> <p><input checked="" type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)</p> <p><input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)</p> <p><input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)</p> <p><input checked="" type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		2
Total for H 1	Add the points in the boxes above	3

**Rating of Site Potential** If score is: 15-18 = H 7-14 = M  0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.)</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>0.0</u> + [(% moderate and low intensity land uses)/2] <u>0.0</u> = <u>0.0</u> %</p> <p>Total accessible habitat is:</p> <p>&gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span></p> <p>20-33% of 1 km Polygon <span style="float: right;">points = 2</span></p> <p>10-19% of 1 km Polygon <span style="float: right;">points = 1</span></p> <p>&lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		0
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.</p> <p><i>Calculate:</i> % relatively undisturbed habitat <u>23.4</u> + [(% moderate and low intensity land uses)/2] <u>27.1</u> = <u>50.5</u> %</p> <p>Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span></p> <p>Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span></p> <p>Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span></p> <p>Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		3
<p>H 2.3. Land use intensity in 1 km Polygon:</p> <p>&gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span></p> <p>≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	3

**Rating of Landscape Potential** If score is: 4-6 = H  1-3 = M < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i></p> <p>Site meets ANY of the following criteria: <span style="float: right;">points = 2</span></p> <p><input type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)</p> <p><input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)</p> <p><input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species</p> <p><input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data</p> <p><input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan</p> <p>Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span></p> <p>Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		1

**Rating of Value** If score is: 2 = H  1 = M 0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- **X Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland X

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

## CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type	Category
<i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i>	
<p><b>SC 1.0. Estuarine wetlands</b></p> <p>Does the wetland meet the following criteria for Estuarine wetlands?</p> <ul style="list-style-type: none"> <li>— The dominant water regime is tidal,</li> <li>— Vegetated, and</li> <li>— With a salinity greater than 0.5 ppt</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 1.1</b>    <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No – Go to <b>SC 1.2</b></p>	<b>Cat. I</b>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Category II</b></p>	<b>Cat. I</b>  <b>Cat. II</b>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b></p> <p>SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup></p> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No – Go to SC 2.2</b></p> <p>SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.</p> <p style="text-align: right;">Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>    <b>No = Not a WHCV</b></p> <p>SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a WHCV</b></p>	<b>Cat. I</b>
<p><b>SC 3.0. Bogs</b></p> <p>Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i></p> <p>SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No – Go to SC 3.2</b></p> <p>SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?</p> <p style="text-align: right;">Yes – Go to <b>SC 3.3</b>    <b>No = Not a bog</b></p> <p>SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No – Go to <b>SC 3.4</b></p> <p><b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.</p> <p>SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p> <p style="text-align: right;">Yes = <b>Category I bog</b>    No = <b>Not a bog</b></p>	<b>Cat. I</b>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland X

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    <b>No = Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    <b>No = Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    <b>No = Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland Y Date of site visit: 6/10/2025  
 Rated by O. Mallett Trained by Ecology? X Yes \_\_\_ No \_\_\_ Date of training 10/2023  
 HGM Class used for rating Riverine Wetland has multiple HGM classes? \_\_\_ Y X \_\_\_ N

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

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics\_\_\_)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H <u>M</u> L	H <u>M</u> L	H M <u>L</u>	
Landscape Potential	<u>H</u> M L	H <u>M</u> L	H <u>M</u> L	
Value	H M <u>L</u>	H M <u>L</u>	<u>H</u> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	6	5	6	17

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland Y

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

#### Depressional Wetlands

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

#### Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 12
Hydroperiods	H 1.2	2, 12
Ponded depressions	R 1.1	15
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	R 2.4	12
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	12
Width of unit vs. width of stream ( <i>can be added to another figure</i> )	R 4.1	12
Map of the contributing basin	R 2.2, R 2.3, R 5.2	15
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	15
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	16

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

**NO** – go to 2

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

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

**NO** – **Saltwater Tidal Fringe (Estuarine)**

**YES** – **Freshwater Tidal Fringe**

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

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

**NO** – go to 3

**YES** – The wetland class is **Flats**

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

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

\_\_\_ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

\_\_\_ At least 30% of the open water area is deeper than 6.6 ft (2 m).

**NO** – go to 4

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

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

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

\_\_\_ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

\_\_\_ The water leaves the wetland **without being impounded**.

**NO** – go to 5

**YES** – The wetland class is **Slope**

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

Wetland Y

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES – The wetland class is Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

**RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**  
**Water Quality Functions - Indicators that the site functions to improve water quality**

<b>R 1.0. Does the site have the potential to improve water quality?</b>		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover $>3/4$ area of wetland	points = 8	0
Depressions cover $> 1/2$ area of wetland	points = 4	
Depressions present but cover $\leq 1/2$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with $>90\%$ cover at person height, <b>not</b> Cowardin classes)		
Trees or shrubs $> 2/3$ area of the wetland	points = 8	8
Trees or shrubs $> 1/3$ area of the wetland	points = 6	
Herbaceous plants ( $> 6$ in. high) $> 2/3$ area of the wetland	points = 6	
Herbaceous plants ( $> 6$ in. high) $> 1/3$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points = 0	
Total for R 1	Add the points in the boxes above	8

**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L *Record the rating on the first page*

<b>R 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is $> 10\%$ of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	0
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4? Other sources _____	Yes = 1 No = 0	0
Total for R 2	Add the points in the boxes above	3

**Rating of Landscape Potential** If score is:   X   3-6 = H    1 or 2 = M    0 = L *Record the rating on the first page*

<b>R 3.0. Is the water quality improvement provided by the site valuable to society?</b>		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (Answer YES if there is a TMDL in development or in effect for the drainage in which the unit is found.)	Yes = 2 No = 0	0
Total for R 3	Add the points in the boxes above	0

**Rating of Value** If score is:    2-4 = H    1 = M   X   0 = L *Record the rating on the first page*

**RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**  
**Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion**

<b>R 4.0. Does the site have the potential to reduce flooding and erosion?</b>		
R 4.1. Characteristics of the overbank storage the wetland provides: Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks). If the ratio is more than 20 If the ratio is 10-20 If the ratio is 5-<10 If the ratio is 1-<5 If the ratio is < 1	points = 9 points = 6 points = 4 points = 2 points = 1	2
R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are <u>NOT Cowardin</u> classes). Forest or shrub for > <sup>1</sup> / <sub>3</sub> area OR emergent plants > <sup>2</sup> / <sub>3</sub> area Forest or shrub for > <sup>1</sup> / <sub>10</sub> area OR emergent plants > <sup>1</sup> / <sub>3</sub> area Plants do not meet above criteria	points = 7 points = 4 points = 0	7
<b>Total for R 4</b>	<b>Add the points in the boxes above</b>	<b>9</b>

**Rating of Site Potential** If score is:    12-16 = H   X   6-11 = M    0-5 = L *Record the rating on the first page*

<b>R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?</b>		
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	0
R 5.2. Does the upgradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the upgradient stream or river controlled by dams?	Yes = 0 No = 1	0
<b>Total for R 5</b>	<b>Add the points in the boxes above</b>	<b>1</b>

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

<b>R 6.0. Are the hydrologic functions provided by the site valuable to society?</b>		
R 6.1. Distance to the nearest areas downstream that have flooding problems? Choose the description that best fits the site. The sub-basin immediately downgradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther downgradient No flooding problems anywhere downstream	points = 2 points = 1 points = 0	0
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
<b>Total for R 6</b>	<b>Add the points in the boxes above</b>	<b>0</b>

**Rating of Value** If score is:    2-4 = H    1 = M   X   0 = L *Record the rating on the first page*

**These questions apply to wetlands of all HGM classes.**

**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.

<input type="checkbox"/> Aquatic bed	4 structures or more: points = 4	0
<input type="checkbox"/> Emergent	3 structures: points = 2	
<input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have > 30% cover)	2 structures: points = 1	
<input type="checkbox"/> Forested (areas where trees have > 30% cover)	1 structure: points = 0	
<i>If the unit has a Forested class, check if:</i>		
<input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon		

H 1.2. Hydroperiods  
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is < 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).

<input type="checkbox"/> Permanently flooded or inundated	4 or more types present: points = 3	1
<input type="checkbox"/> Seasonally flooded or inundated	3 types present: points = 2	
<input type="checkbox"/> Occasionally flooded or inundated	2 types present: points = 1	
<input checked="" type="checkbox"/> Saturated only	1 type present: points = 0	
<input checked="" type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland		
<input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland		
<input type="checkbox"/> <b>Lake Fringe wetland</b>	<b>2 points</b>	
<input type="checkbox"/> <b>Freshwater tidal wetland</b>	<b>2 points</b>	

H 1.3. Richness of plant species  
Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. **Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle**

If you counted: > 19 species	points = 2	1
5 - 19 species	points = 1	
< 5 species	points = 0	

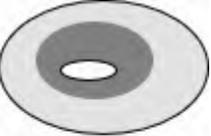
H 1.4. Interspersion of habitats  
Decide from the diagrams below whether interspersions among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.



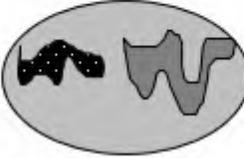
**None = 0 points**



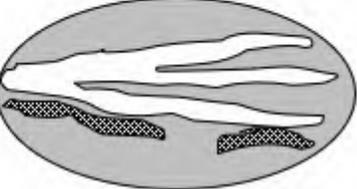
**Low = 1 point**

**Moderate = 2 points**







All three diagrams in this row are **High = 3 points**

Wetland Y

<p>H 1.5. Special habitat features:            Check the habitat features that are present in the wetland. The number of checks is the number of points.  <input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).  <input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)  <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)  <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		0
Total for H 1	Add the points in the boxes above	3

**Rating of Site Potential** If score is:    15-18 = H    7-14 = M   X  0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>3.2</u> + [(% moderate and low intensity land uses)/2] <u>12.2</u> = <u>15.4</u>%            Total accessible habitat is:            &gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span>            20-33% of 1 km Polygon <span style="float: right;">points = 2</span>            10-19% of 1 km Polygon <span style="float: right;">points = 1</span>            &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>16.1</u> + [(% moderate and low intensity land uses)/2] <u>30.7</u> = <u>46.8</u>%            Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span>            Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span>            Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span>            Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.3. Land use intensity in 1 km Polygon:            &gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span>            ≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	2

**Rating of Landscape Potential** If score is:    4-6 = H   X  1-3 = M    < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i>            Site meets ANY of the following criteria: <span style="float: right;">points = 2</span>  <input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)  <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)  <input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species  <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data  <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan            Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span>            Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		2

**Rating of Value** If score is:   X  2 = H    1 = M    0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- X** **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland Y

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<p><i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i></p>	
<p><b>SC 1.0. Estuarine wetlands</b>                      Does the wetland meet the following criteria for Estuarine wetlands?                      — The dominant water regime is tidal,                      — Vegetated, and                      — With a salinity greater than 0.5 ppt</p>	
<p>Yes – Go to <b>SC 1.1</b>      <b>No = Not an estuarine wetland</b></p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p>	<p><b>Cat. I</b></p>
<p>Yes = <b>Category I</b>      No – Go to <b>SC 1.2</b></p> <p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?                      — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.                      — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.                      — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p>	<p><b>Cat. I</b>  <b>Cat. II</b></p>
<p>Yes = <b>Category I</b>      No = <b>Category II</b></p> <p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b>                      SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup>                      Yes = <b>Category I</b>      <b>No – Go to SC 2.2</b>                      SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.                      Yes – <a href="#">Submit data to WA Natural Heritage Program for determination</a>,<sup>136</sup> Go to <b>SC 2.3</b>      <b>No = Not a WHCV</b>                      SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?                      Yes = <b>Category I</b>      No = <b>Not a WHCV</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 3.0. Bogs</b>                      Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i>                      SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?                      Yes – Go to <b>SC 3.3</b>      <b>No – Go to SC 3.2</b>                      SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?                      Yes – Go to <b>SC 3.3</b>      <b>No = Not a bog</b>                      SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?                      Yes = <b>Category I bog</b>      No – Go to <b>SC 3.4</b>  <b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.                      SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?                      Yes = <b>Category I bog</b>      No = <b>Not a bog</b></p>	<p><b>Cat. I</b></p>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland Y

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    No = <b>Not a wetland in a coastal lagoon</b></p> <p><b>SC 5.1. Does the wetland meet all of the following three conditions?</b></p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    No = <b>Not an interdunal wetland for rating</b></p> <p><b>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?</b>  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p><b>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?</b>  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p><b>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?</b>  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

## RATING SUMMARY – Western Washington

Name of wetland (or ID #): Wetland Z Date of site visit: 6/10/2025  
 Rated by O. Mallett Trained by Ecology? X Yes \_\_\_ No \_\_\_ Date of training 10/2023  
 HGM Class used for rating Riverine Wetland has multiple HGM classes? \_\_\_ Y X \_\_\_ N

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

**OVERALL WETLAND CATEGORY III** (based on functions X or special characteristics\_\_\_)

### 1. Category of wetland based on FUNCTIONS

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

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

9 = H, H, H  
 8 = H, H, M  
 7 = H, H, L  
 7 = H, M, M  
 6 = H, M, L  
 6 = M, M, M  
 5 = H, L, L  
 5 = M, M, L  
 4 = M, L, L  
 3 = L, L, L

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
<i>Circle the appropriate ratings</i>				
Site Potential	H <u>M</u> L	H <u>M</u> L	H M <u>L</u>	
Landscape Potential	<u>H</u> M L	H <u>M</u> L	H <u>M</u> L	
Value	H M <u>L</u>	H M <u>L</u>	<u>H</u> M L	<b>TOTAL</b>
<b>Score Based on Ratings</b>	6	5	6	17

### 2. Category based on SPECIAL CHARACTERISTICS of wetland

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

## Wetland Z

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

#### Depressional Wetlands

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

#### Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	2, 12
Hydroperiods	H 1.2	2, 12
Ponded depressions	R 1.1	15
Boundary of area within 150 ft of the wetland ( <i>can be added to another figure</i> )	R 2.4	12
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	12
Width of unit vs. width of stream ( <i>can be added to another figure</i> )	R 4.1	12
Map of the contributing basin	R 2.2, R 2.3, R 5.2	15
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and total habitat	H 2.1, H 2.2, H 2.3	15
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	16
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	16

#### Lake Fringe Wetlands

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

#### Slope Wetlands

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

## HGM Classification of Wetlands in Western Washington

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

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

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

**NO** – go to 2

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

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

**NO** – **Saltwater Tidal Fringe (Estuarine)**

**YES** – **Freshwater Tidal Fringe**

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

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

**NO** – go to 3

**YES** – The wetland class is **Flats**

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

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

\_\_\_ The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size,

\_\_\_ At least 30% of the open water area is deeper than 6.6 ft (2 m).

**NO** – go to 4

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

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

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

\_\_\_ The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheet flow, or in a swale without distinct banks,

\_\_\_ The water leaves the wetland **without being impounded**.

**NO** – go to 5

**YES** – The wetland class is **Slope**

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

Wetland Z

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

- The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
- The overbank flooding occurs at least once every 2 years.

NO – go to 6

**YES – The wetland class is Riverine**

**NOTE:** The Riverine unit can contain depressions that are filled with water when the river is not flooding

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

NO – go to 7

**YES – The wetland class is Depressional**

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

NO – go to 8

**YES – The wetland class is Depressional**

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

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

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

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

Wetland Z

**RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS**  
**Water Quality Functions - Indicators that the site functions to improve water quality**

<b>R 1.0. Does the site have the potential to improve water quality?</b>		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover $>3/4$ area of wetland	points = 8	0
Depressions cover $> 1/2$ area of wetland	points = 4	
Depressions present but cover $\leq 1/2$ area of wetland	points = 2	
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with $>90\%$ cover at person height, <b>not</b> Cowardin classes)		
Trees or shrubs $> 2/3$ area of the wetland	points = 8	8
Trees or shrubs $> 1/3$ area of the wetland	points = 6	
Herbaceous plants ( $> 6$ in. high) $> 2/3$ area of the wetland	points = 6	
Herbaceous plants ( $> 6$ in. high) $> 1/3$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous $< 1/3$ area of the wetland	points = 0	
<b>Total for R 1</b>	<b>Add the points in the boxes above</b>	<b>8</b>

**Rating of Site Potential** If score is:    12-16 = H    **X** 6-11 = M    0-5 = L *Record the rating on the first page*

<b>R 2.0. Does the landscape have the potential to support the water quality function of the site?</b>		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is $> 10\%$ of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	0
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4? Other sources _____	Yes = 1 No = 0	0
<b>Total for R 2</b>	<b>Add the points in the boxes above</b>	<b>3</b>

**Rating of Landscape Potential** If score is: **X**    3-6 = H    1 or 2 = M    0 = L *Record the rating on the first page*

<b>R 3.0. Is the water quality improvement provided by the site valuable to society?</b>		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (Answer YES if there is a TMDL in development or in effect for the drainage in which the unit is found.) Yes = 2 No = 0		0
<b>Total for R 3</b>	<b>Add the points in the boxes above</b>	<b>0</b>

**Rating of Value** If score is:    2-4 = H    1 = M **X** 0 = L *Record the rating on the first page*

## RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

### Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion

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 average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks). If the ratio is more than 20 <span style="float: right;">points = 9</span> If the ratio is 10-20 <span style="float: right;">points = 6</span> If the ratio is 5-<10 <span style="float: right;">points = 4</span> If the ratio is 1-<5 <b>See Figure 7</b> <span style="float: right;">points = 2</span> If the ratio is < 1 <span style="float: right;">points = 1</span>		2
R 4.2. Characteristics of plants that slow down water velocities during floods: Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are <u>NOT Cowardin</u> classes). Forest or shrub for > <sup>1</sup> / <sub>3</sub> area OR emergent plants > <sup>2</sup> / <sub>3</sub> area <span style="float: right;">points = 7</span> Forest or shrub for > <sup>1</sup> / <sub>10</sub> area OR emergent plants > <sup>1</sup> / <sub>3</sub> area <span style="float: right;">points = 4</span> Plants do not meet above criteria <span style="float: right;">points = 0</span>		7
<b>Total for R 4</b> <span style="float: right;">Add the points in the boxes above</span>		9

**Rating of Site Potential** If score is:    12-16 = H  6-11 = M    0-5 = L

*Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	0
R 5.2. Does the upgradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the upgradient stream or river controlled by dams?	Yes = 0 No = 1	0
<b>Total for R 5</b> <span style="float: right;">Add the points in the boxes above</span>		1

**Rating of Landscape Potential** If score 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?		
R 6.1. Distance to the nearest areas downstream that have flooding problems? Choose the description that best fits the site. The sub-basin immediately downgradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) <span style="float: right;">points = 2</span> Surface flooding problems are in a sub-basin farther downgradient <span style="float: right;">points = 1</span> No flooding problems anywhere downstream <span style="float: right;">points = 0</span>		0
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? <span style="float: right;">Yes = 2 No = 0</span>		0
<b>Total for R 6</b> <span style="float: right;">Add the points in the boxes above</span>		0

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

*Record the rating on the first page*

**These questions apply to wetlands of all HGM classes.**

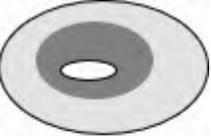
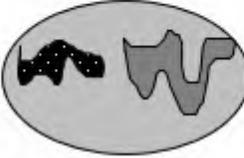
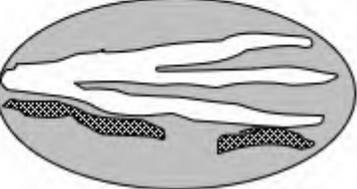
**HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat

**H 1.0. Does the site have the potential to provide habitat?**

<p>H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac if the unit is at least 2.5 ac, or more than 10% of the unit if it is smaller than 2.5 ac.</p> <p> <input type="checkbox"/> Aquatic bed <span style="float: right;">4 structures or more: points = 4</span>  <input type="checkbox"/> Emergent <span style="float: right;">3 structures: points = 2</span>  <input checked="" type="checkbox"/> Scrub-shrub (areas where shrubs have &gt; 30% cover) <span style="float: right;">2 structures: points = 1</span>  <input type="checkbox"/> Forested (areas where trees have &gt; 30% cover) <span style="float: right;">1 structure: points = 0</span>  <i>If the unit has a Forested class, check if:</i>  <input type="checkbox"/> The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/groundcover) that each cover 20% within the Forested polygon                 </p>	0
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<p>H 1.2. Hydroperiods</p> <p>Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland if the unit is &lt; 2.5 ac, or ¼ ac if the unit is at least 2.5 ac to count (see text for descriptions of hydroperiods).</p> <p> <input type="checkbox"/> Permanently flooded or inundated <span style="float: right;">4 or more types present: points = 3</span>  <input type="checkbox"/> Seasonally flooded or inundated <span style="float: right;">3 types present: points = 2</span>  <input type="checkbox"/> Occasionally flooded or inundated <span style="float: right;">2 types present: points = 1</span>  <input checked="" type="checkbox"/> Saturated only <span style="float: right;">1 type present: points = 0</span>  <input checked="" type="checkbox"/> Permanently flowing stream or river in, or adjacent to, the wetland  <input type="checkbox"/> Intermittently or seasonally flowing stream in, or adjacent to, the wetland  <input type="checkbox"/> <b>Lake Fringe wetland</b> <span style="float: right;"><b>2 points</b></span>  <input type="checkbox"/> <b>Freshwater tidal wetland</b> <span style="float: right;"><b>2 points</b></span> </p>	1
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<p>H 1.3. Richness of plant species</p> <p>Count the number of plant species in the wetland that cover at least 10 ft<sup>2</sup>. Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. <b>Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canada thistle</b></p> <p>If you counted: &gt; 19 species <span style="float: right;">points = 2</span>          5 - 19 species <span style="float: right;">points = 1</span>          &lt; 5 species <span style="float: right;">points = 0</span></p>	1
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<p>H 1.4. Interspersion of habitats</p> <p>Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  <p><b>None = 0 points</b></p> </div> <div style="text-align: center;">  <p><b>Low = 1 point</b></p> </div> <div style="text-align: center;">   <p><b>Moderate = 2 points</b></p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 20px;"> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <p>All three diagrams in this row are <b>High = 3 points</b></p>	0
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Wetland Z

<p>H 1.5. Special habitat features:                  Check the habitat features that are present in the wetland. The number of checks is the number of points.  <input type="checkbox"/> Large, downed, woody debris within the wetland (&gt; 4 in. diameter and 6 ft long).  <input type="checkbox"/> Standing snags (dbh &gt; 4 in.) within the wetland  <input type="checkbox"/> Undercut banks are present for at least 6.6 ft (2 m) <b>and/or</b> overhanging plants extend at least 3.3 ft (1 m) over open water or a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)  <input type="checkbox"/> Stable steep banks of fine material that might be used by beaver or muskrat for denning (&gt; 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)  <input type="checkbox"/> At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)  <input type="checkbox"/> Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 above for the list of strata and H 1.5 in the manual for the list of aggressive plant species)</p>		0
Total for H 1	Add the points in the boxes above	2

**Rating of Site Potential** If score is:    15-18 = H    7-14 = M   X  0-6 = L *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
<p>H 2.1. Accessible habitat (include only habitat polygons accessible from the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>3.2</u> + [(% moderate and low intensity land uses)/2] <u>12.2</u> = <u>15.4</u> %                  Total accessible habitat is:                  &gt; 1/3 (33.3%) of 1 km Polygon <span style="float: right;">points = 3</span>                  20-33% of 1 km Polygon <span style="float: right;">points = 2</span>                  10-19% of 1 km Polygon <span style="float: right;">points = 1</span>                  &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.2. Total habitat in 1 km Polygon around the wetland.  <i>Calculate:</i> % relatively undisturbed habitat <u>16.1</u> + [(% moderate and low intensity land uses)/2] <u>30.7</u> = <u>46.8</u>%                  Total habitat &gt; 50% of Polygon <span style="float: right;">points = 3</span>                  Total habitat 10-50% and in 1-3 patches <span style="float: right;">points = 2</span>                  Total habitat 10-50% and &gt; 3 patches <span style="float: right;">points = 1</span>                  Total habitat &lt; 10% of 1 km Polygon <span style="float: right;">points = 0</span></p>		1
<p>H 2.3. Land use intensity in 1 km Polygon:                  &gt; 50% of 1 km Polygon is high intensity land use <span style="float: right;">points = (- 2)</span>                  ≤ 50% of 1 km Polygon is high intensity <span style="float: right;">points = 0</span></p>		0
Total for H 2	Add the points in the boxes above	2

**Rating of Landscape Potential** If score is:    4-6 = H   X  1-3 = M    < 1 = L *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?		
<p>H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score that applies to the wetland being rated.</i>                  Site meets ANY of the following criteria: <span style="float: right;">points = 2</span>  <input checked="" type="checkbox"/> It has 3 or more Priority Habitats within 100 m (see next page)  <input type="checkbox"/> It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)  <input type="checkbox"/> It is mapped as a location for an individual WDFW Priority Species  <input type="checkbox"/> It is a Wetland of High Conservation Value as determined by the Department of Natural Resources data  <input type="checkbox"/> It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan                  Site has 1 or 2 Priority Habitats (listed on next page) within 100 m <span style="float: right;">points = 1</span>                  Site does not meet any of the criteria above <span style="float: right;">points = 0</span></p>		2

**Rating of Value** If score is:   X  2 = H    1 = M    0 = L *Record the rating on the first page*

## WDFW Priority Habitats

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

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

Count how many of the following Priority Habitats are within 330 ft (100 m) of the wetland unit:

- **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
- **Biodiversity Areas and Corridors:** Areas of habitat that are relatively important to various species of native fish and wildlife. This habitat automatically counts if mapped on the PHS online map within 100m of the wetland. If not mapped, a determination can be made in the field.
- **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
- **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
- **Fresh Deepwater:** Lands permanently flooded with freshwater, including environments where surface water is permanent and often deep, so that water, rather than air, is the principal medium within which the dominant organisms live. Substrate does not support emergent vegetation. Do not select if Instream habitat is also present, or if the entire Deepwater feature is included in the wetland unit being rated (such as a pond with a vegetated fringe).
- **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.
- X** **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Do not select if Fresh Deepwater habitat is also present.
- **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore.
- **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in. (81 cm) diameter at breast height (dbh) or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in. (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

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<sup>133</sup> <http://wdfw.wa.gov/publications/00165/wdfw00165.pdf>

## Wetland Z

- **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important. For single oaks or oak stands <0.4 ha in urban areas, [WDFW's Management Recommendations for Oregon White Oak](#)<sup>134</sup> provides more detail for determining if they are Priority Habitats
- X Riparian:** The area adjacent to freshwater aquatic systems with flowing or standing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
- X Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in. (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in. (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.
- **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
- **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie.

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<sup>134</sup> <https://wdfw.wa.gov/publications/00030/wdfw00030.pdf>

**CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS**

Wetland Type	Category
<p><i>Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.</i></p>	
<p><b>SC 1.0. Estuarine wetlands</b>                      Does the wetland meet the following criteria for Estuarine wetlands?                      — The dominant water regime is tidal,                      — Vegetated, and                      — With a salinity greater than 0.5 ppt</p>	
<p>SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?</p>	<p>Cat. I</p>
<p>SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?                      — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 10% cover of non-native plant species. If non-native species are <i>Spartina</i>, see chapter 4.8 in the manual.                      — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.                      — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.</p>	<p>Cat. I                      Cat. II</p>
<p><b>SC 2.0. Wetlands of High Conservation Value (WHCV)</b>                      SC 2.1. Does the wetland overlap with any known or historical rare plant or rare &amp; high-quality ecosystem polygons on the WNHP <a href="#">Data Explorer</a>?<sup>135</sup>                      SC 2.2. Does the wetland have a rare plant species, rare ecosystem (e.g., plant community), or high-quality common ecosystem that may qualify the site as a WHCV? Contact WNHP for resources to help determine the presence of these elements.                      SC 2.3. Did WNHP review the site within 30 days and determine that it has a rare plant or ecosystem that meets their criteria?</p>	<p>Cat. I</p>
<p><b>SC 3.0. Bogs</b>                      Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key below. If you answer YES, you will still need to rate the wetland based on its functions.</i>                      SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in. or more of the first 32 in. of the soil profile?                      SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in. deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?                      SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?  <b>NOTE:</b> If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in. deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.                      SC 3.4. Is an area with peats or mucks forested (&gt; 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?</p>	<p>Cat. I</p>

<sup>135</sup> <https://www.dnr.wa.gov/NHPdata>

<sup>136</sup> [https://www.dnr.wa.gov/Publications/amp\\_nh\\_sighting\\_form.pdf](https://www.dnr.wa.gov/Publications/amp_nh_sighting_form.pdf)

Wetland Z

<p><b>SC 4.0. Forested Wetlands</b></p> <p>Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife’s forests as Priority Habitats? <b><i>If you answer YES, you will still need to rate the wetland based on its functions.</i></b></p> <ul style="list-style-type: none"> <li>— <b>Old-growth forests</b> (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in. (81 cm) or more.</li> <li>— <b>Mature forests</b> (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in. (53 cm).</li> </ul> <p style="text-align: right;">Yes = <b>Category I</b>    No = <b>Not a forested wetland for this section</b></p>	<p><b>Cat. I</b></p>
<p><b>SC 5.0. Wetlands in Coastal Lagoons</b></p> <p>Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?</p> <ul style="list-style-type: none"> <li>— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks</li> <li>— The lagoon in which the wetland is located contains ponded water that is saline or brackish (&gt; 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to be measured near the bottom</i>)</li> <li>— The lagoon retains some of its surface water at low tide during spring tides</li> </ul> <p>Yes – Go to <b>SC 5.1</b>    No = <b>Not a wetland in a coastal lagoon</b></p> <p>SC 5.1. Does the wetland meet all of the following three conditions?</p> <ul style="list-style-type: none"> <li>— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species in H 1.5 in the manual).</li> <li>— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland.</li> <li>— The wetland is larger than 1/10 ac (4350 ft<sup>2</sup>)</li> </ul> <p>Yes = <b>Category I</b>    No = <b>Category II</b></p>	<p><b>Cat. I</b></p> <p><b>Cat. II</b></p>
<p><b>SC 6.0. Interdunal Wetlands</b></p> <p>Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <b><i>If you answer YES, you will still need to rate the wetland based on its habitat functions.</i></b></p> <p>In practical terms that means the following geographic areas:</p> <ul style="list-style-type: none"> <li>— Long Beach Peninsula: Lands west of SR 103</li> <li>— Grayland-Westport: Lands west of SR 105</li> <li>— Ocean Shores-Copalis: Lands west of SR 115 and SR 109 and Ocean Shores Blvd SW, including lands west of E. Oceans Shores Blvd SW.</li> </ul> <p style="text-align: right;">Yes – Go to <b>SC 6.1</b>    No = <b>Not an interdunal wetland for rating</b></p> <p>SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?  <span style="float: right;">Yes = <b>Category I</b>    No – Go to <b>SC 6.2</b></span></p> <p>SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?  <span style="float: right;">Yes = <b>Category II</b>    No – Go to <b>SC 6.3</b></span></p> <p>SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?  <span style="float: right;">Yes = <b>Category III</b>    No = <b>Category IV</b></span></p>	<p><b>Cat I</b></p> <p><b>Cat. II</b></p> <p><b>Cat. III</b></p> <p><b>Cat. IV</b></p>
<p><b>Category of wetland based on Special Characteristics</b>          If you answered No for all types, enter “Not Applicable” on Summary Form</p>	<p>Not Applicable</p>

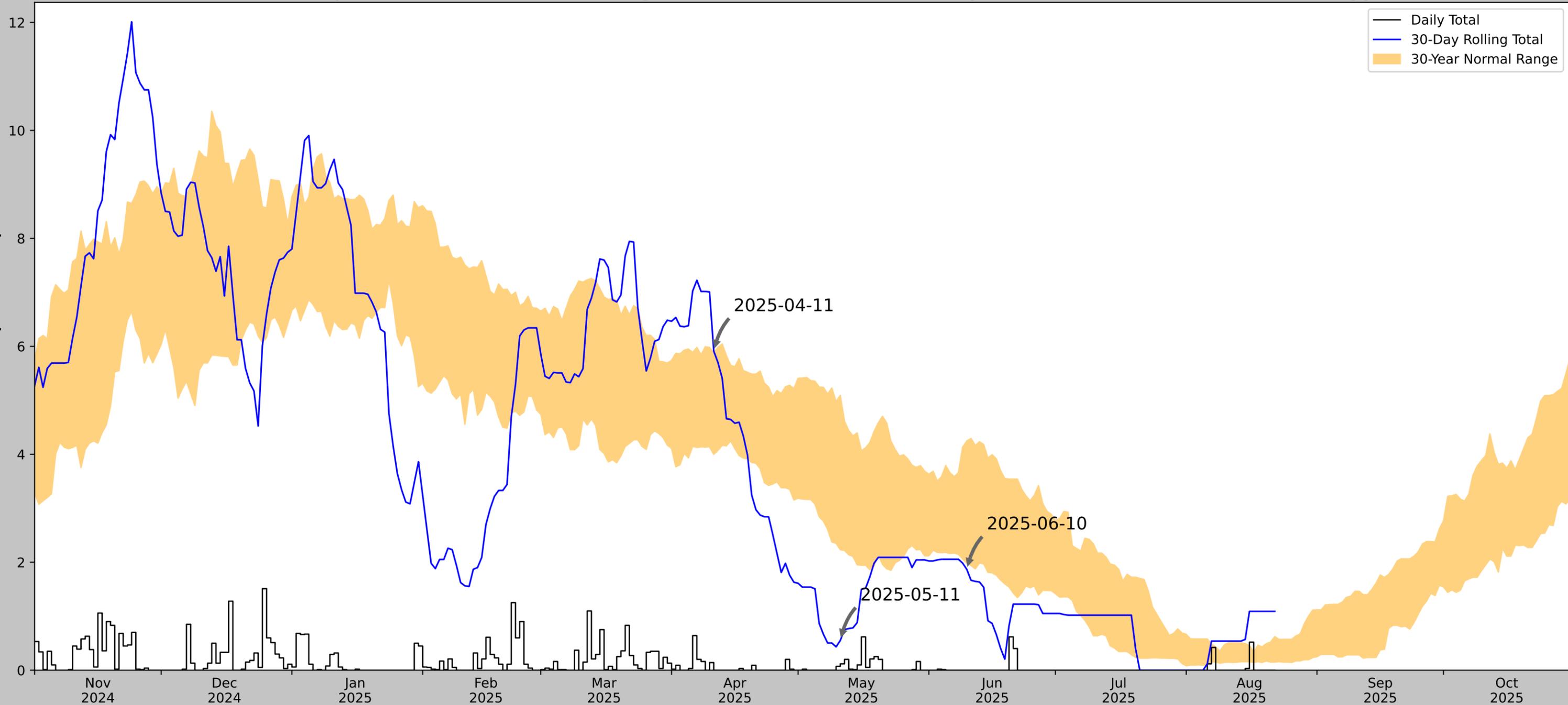
## APPENDIX D

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### ANTECEDENT PRECIPITATION TOOL DATA

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	45.62724, -122.42365
Observation Date	2025-06-10
Elevation (ft)	288.401
Drought Index (PDSI)	Moderate drought
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-06-10	1.98189	4.246063	1.866142	Dry	1	3	3
2025-05-11	2.23189	5.090945	0.551181	Dry	1	2	2
2025-04-11	3.999606	5.876772	5.909449	Wet	3	1	3
Result							Drier than Normal - 8

Figures and tables made by the  
Antecedent Precipitation Tool  
Version 3.0

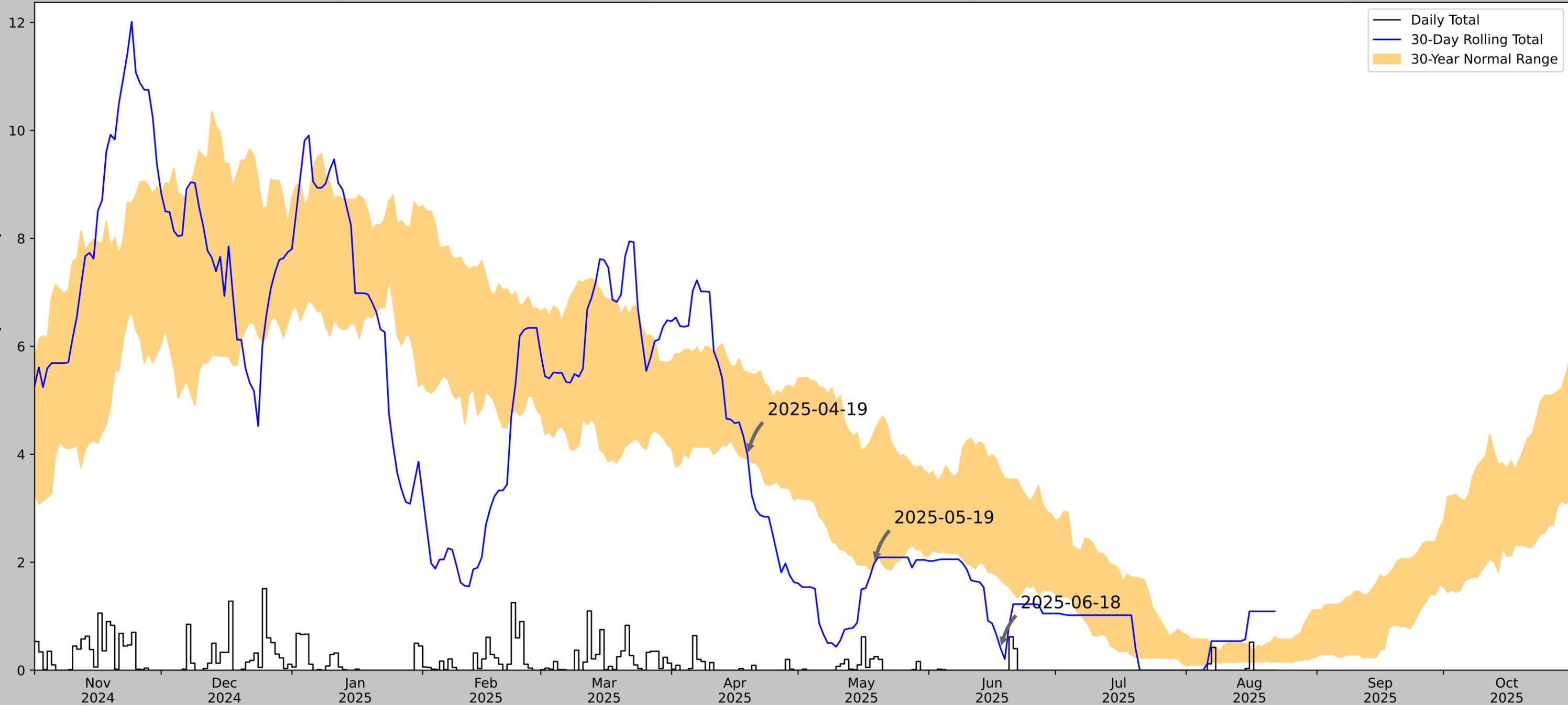


Developed by:  
U.S. Army Corps of Engineers and  
U.S. Army Engineer Research and  
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
BATTLE GROUND	45.7717, -122.5286	284.121	11.193	4.28	5.085	11320	89
BATTLE GROUND 1.2 NE	45.7958, -122.5275	361.877	1.666	77.756	0.879	0	1
VANCOUVER 4 NNE	45.6775, -122.6514	220.144	8.8	63.977	4.523	2	0
MERWIN DAM	45.955, -122.5625	224.081	12.769	60.04	6.513	31	0

# Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network

Rainfall (Inches)



Coordinates	45.62724, -122.42365
Observation Date	2025-06-18
Elevation (ft)	288.401
Drought Index (PDSI)	Moderate drought
WebWIMP H <sub>2</sub> O Balance	Dry Season

30 Days Ending	30 <sup>th</sup> %ile (in)	70 <sup>th</sup> %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-06-18	1.669685	3.698032	0.405512	Dry	1	3	3
2025-05-19	1.933071	4.423228	1.980315	Normal	2	2	4
2025-04-19	3.916929	5.518504	3.984252	Normal	2	1	2
Result							Drier than Normal - 9

Figures and tables made by the  
Antecedent Precipitation Tool  
Version 3.0



US Army Corps  
of Engineers.



Developed by:  
U.S. Army Corps of Engineers and  
U.S. Army Engineer Research and  
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
BATTLE GROUND	45.7717, -122.5286	284.121	11.193	4.28	5.085	11320	89
BATTLE GROUND 1.2 NE	45.7958, -122.5275	361.877	1.666	77.756	0.879	0	1
VANCOUVER 4 NNE	45.6775, -122.6514	220.144	8.8	63.977	4.523	2	0
MERWIN DAM	45.955, -122.5625	224.081	12.769	60.04	6.513	31	0