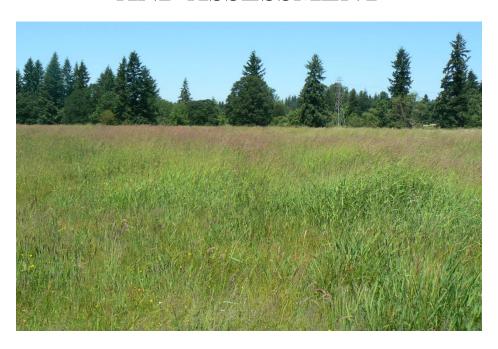
EXHIBIT 9 CUP16-02

SECTION 9 - WETLAND STUDY

Lacamas Heights Elementary School REVISED - WETLAND DELINEATION AND ASSESSMENT



Prepared for:
Camas School District
841 N.E. 22nd Avenue
Camas, WA 98607

Prepared by:
The Resource Company, Inc. 8415 N.E. 8th Avenue
Vancouver, WA 98660
(360) 693-4555

March 29, 2016



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REVISED WETLAND DELINEATION & ASSESSMENT

Project: Lacamas Heights Elementary School

Applicant: Camas School District

Location: 1111 N.E. 232nd Avenue, Camas, Washington Legal Description: NW ¼ of Sec. 27, T02N, R03E, W. M., Clark County

Serial Number(s): 175724-000 Local Jurisdiction: City of Camas

Study Area Size: 40 acres

Project Type: Elementary School

Zoning: R-7.5 ComPlan: SFM

Assessment by: Kevin Grosz, PWS & Eli Schmitz

Site Visit(s): April 30, May 30 & June 20, 2014 & March 28, 2016

Report Date: June 30, 2014

Revised

Report Date: March 29, 2016

1.0 INTRODUCTION

This report details the results of a revised wetland delineation and assessment conducted for the property located at 1111 N.E. 232nd Avenue, Camas, Washington by The Resource Company, Inc. (Fig. 1). This report identifies the extent of any wetlands and associated buffers found within the study area as defined and regulated by the City of Camas Critical Areas Ordinance – Wetlands (16.53), U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act and Washington Department of Ecology (Ecology) under the Water Pollution Control Act. The initial report dated June 30, 2014 was prepared for the Weakley family who owned the property at that time. Since that time, the Camas School District purchased the property to construct an elementary school. In 2014 Ecology updated the wetland rating system for western Washington which went into effect on January 1, 2015. This report addresses the revised wetland ratings under the updated system and changes in wetland buffer widths associated with those revisions. In addition, a wetland that was not identified during the previous work conducted on the property was delineated near the center of the property and rated.

The study area encompasses tax lot 175724-000 which is approximately 40 acres. Currently, the property contains two houses and outbuildings on the western edge of the site. The majority of the study area is open grassland with a band of trees near the northern and western property lines. The property slopes from northeast to southwest as shown in Figure 2. Through the course of the assessment six (6) wetlands and three (3) streams were identified on the property.

2.0 DELINEATION METHODS

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

Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

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

<u>Hydrophytic vegetation</u> are plants that due to morphological, physiological, and/or reproductive adaptations, have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. <u>Hydric soils</u> are soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. <u>Wetland hydrology</u> is present when an area is inundated or saturated to the surface for at least 5 percent of the growing season. The growing season is defined as the portion of the year when soil temperature at 19.7 inches below the soil surface is greater than biological zero (5 degrees C).

Except in certain situations defined in the manual, evidence of a minimum of one positive wetland indicator from each of the three parameters (hydrology, soil, and vegetation) must be found in order to make a positive wetland determination.

Prior to the on-site investigations, a review of existing information related to determination of wetland boundaries was conducted. This review included the Natural Resource Conservation Service (NRCS) Web Soil Survey, National Wetland Inventory maps, Clark County Local Wetland Inventory (LWI) maps, Clark County, and aerial photographs.

Following the background information review, on-site investigations were conducted on April 30, May 30 & June 20, 2014 and March 28, 2016. In order to delineate wetlands within the study area, observation points were selected to correspond with terrain features, vegetation, hydrology and mapped hydric soils identified on the site. At each observation point, the vegetation, soils and hydrology were characterized and this information was then used as the basis for making the wetland determinations.

Wetland indicator status ratings and their ordinal rating categories, based on ecological descriptions. Indicator Status (abbreviation) Ecological Description*

Obligate (OBL) Almost always is a hydrophyte, rarely in uplands Facultative Wetland (FACW) Usually is a hydrophyte but occasionally found in uplands

Facultative (FAC) Commonly occurs as either a hydrophyte or nonhydrophyte Facultative Upland (FACU) Occasionally is a hydrophyte, but usually occurs in uplands

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

*Source: Lichvar and Minkin (2008)

Hydrophytic vegetation is present when more than 50 percent of the dominant species have an indicator status of OBL, FACW, and/or FAC.

The presence or absence of hydric soils was determined by digging soil pits to a depth of 18 inches and examining the soil for hydric soil indicators. Organic soils such as peats and mucks are considered hydric soils. Mineral hydric soils are generally either gleyed or have bright concentrations and/or low matrix chroma immediately below the Ahorizon or 10 inches (whichever is shallower). Soil colors are determined using the Munsell Soil Color Chart (Munsell Color System 2009).

The site was examined for standing water and/or saturated soils, which serve as primary indicators of wetland hydrology. The area was also checked for other wetland hydrologic characteristics such as watermarks, drift lines, wetland drainage patterns, and morphological plant adaptations.

3.0 SITE SPECIFIC METHODS

The Resource Company, Inc. conducted a wetland delineation of the study area on April 30, May 30 & June 20, 2014 and March 28, 2016 using the methodology found in the Regional Supplement to the Manual (USACE 2010). In addition, applicable guidance and any supporting technical guidance documents issued by the USACE, Ecology, and City of Camas were also utilized.

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

The wetland boundary was associated with a change in plant communities, hydric soil and wetland hydrology indicators. The wetland boundary was determined based on the presence of hydric soils, the presence of wetland hydrology (i.e. oxidized rhizospheres

along living roots, soil saturation), and a dominance of hydrophytic vegetation. It should be noted that only paired plots were recorded in the field, however, numerous unrecorded plots were dug to confirm wetland boundaries. The on-site wetlands were classified according the USFWS classification system (Cowardin et al. 1979) and the Hydrogeomorphic (HGM) Classification system (Adamus et al. 2001).

4.0 RESULTS AND DISCUSSION

The NWI map does not identify wetlands within the study area (Fig. 3). However, the LWI shows wetlands in the southwest and northeast corners of the property (Fig. 3). It should be noted that NWI and LWI maps are created through aerial photograph and topographic map interpretation and are not intended to represent the extent of jurisdictional wetlands. There may be unmapped wetland and waters subject to regulation and all wetlands and waters boundary mapping is approximate. In all cases, actual field conditions determine the presence, absence and boundaries of wetlands and waters.

The NRCS (USDA 2012) Web Soil Survey (Fig. 4) identifies the following soil mapping units on this site:

Cove silty clay loam, 0 to 3 percent slopes (CvA), occurs in the southwest corner of the site. This soil is found in concave drainage ways and in large, flat, old lakebeds. The slope is generally less than 1 percent. In a typical profile, the surface layer is very dark gray silty clay loam about 4 inches thick. Below this is firm clay about 32 inches thick. Surface runoff is very slow, and ponding is common in winter unless drainage is provided. It is classified as a hydric soil according to the Clark County hydric soils list.

Lauren Loam, 0 to 8 percent slopes (LeB), Lauren Gravelly Loam, 8 to 20 percent slopes (LgD), & 20 to 45 percent slopes (LgF) is the primary soil series on the site. Generally, it is a deep, somewhat excessively drained formed in mixed Columbia River alluvium that contained some volcanic ash. The top 6 inches is a very dark brown (10YR 2/2) gravelly loam. Below this to a depth of 20 inches this soil is a very dark brown that is a very gravelly loam. Permeability is moderately rapid, surface runoff is slow and the erosion hazard is slight. It is listed as a non-hydric soil.

McBee Silt Loam, coarse variant, 0 to 3 percent slopes (MlA), occurs in the western one-third of the study area (Fig. 3). Generally this soil is found in drainageways and depressions formed in alluvium derived from quartzite and basalt. The surface layer is a very dark brown (10YR 2/2) silt loam about 11 inches thick with iron concentrations. Below this to a depth of 20 inches this soils is a dark brown (10YR 2/2) heavy loam that contains concentrations. Typically, it is somewhat poorly drained, permeability is moderate and surface run-off is slow. It is listed as a hydric soil.

Based on the review of existing information and the routine on-site delineation method described by the USACE, six (6) wetlands were identified and classified within the study

site. The area within the flagged boundary, which meets all three wetland criteria, was marked in the field with orange flagging with 'WETLAND BOUNDARY" written in black lettering. These flags were located using a GPS unit with sub-meter accuracy. The located boundaries of the wetlands are shown in Figures 5 and 6. A description of the wetlands and surrounding uplands is found below.

4.1 WETLANDS

Wetland A (1.03 ac.) (Figs. 5/6)

Wetland A is a depressional hydrogeomorphic (HGM) class wetland that occurs in the southwest corner of the study area. A perennial stream flows through the southern portion of the wetland. This wetland contains forest and emergent plant communities with a sparse shrub layer. The forest plant community is dominated by Oregon ash (Fraxinus latifolia – FACW) and willow (Salix spp. – FAC). The shrub layer is predominantly Oregon ash saplings. Ground cover in the southern portion of the wetland is dominated by skunk cabbage (Lysichiton amercanus – OBL), reed canarygrass (Phalaris arundinacea – FACW), soft rush (Juncus effuses – FACW), and creeping buttercup (Ranuculus repens – FAC). Vegetation along the northern edge of the wetland is predominantly reed canarygrass, soft rush, field horsetail (*Equisetum arvense* – FAC), Kentucky bluegrass (*Poa pratensis* – FAC), and Himalayan blackberry (*Rubus* ameniacus – FACU). Soils along the wetland boundary are a very dark grayish brown (10YR 3/2) silty clay loam in the upper six inches with strong brown (7.5YR 4/6) concentrations. Below this to a depth greater than 16 inches the soil is a very dark gray (10YR 3/1) silty clay loam with reddish brown (5YR 4/4) concentrations. Wetland hydrology indicators observed along the wetland boundary include water at 6 inches below the surface, soil saturation at the surface and the presence of oxidized rhyzospheres. The southern portion of the wetland was inundated with 3-4" (depth) of water. The perennial stream was flowing through the wetland at the time of the assessment. This wetland rated as a Category III wetland (See Table 1).

Wetlands B (0.83 ac. - onsite), C (0.16 ac.) & F (0.2 ac.) (Figs. 5/6)

Wetlands B and C both meet the criteria of a slope hydrogeomorphic (HGM) wetland class. Wetland B extends off-site to the east. Wetland F is a HGM depressional wetland. These wetlands are all similar in vegetation, soils and hydrology therefore they are described together. The wetlands are palustrine emergent, temporarily/seasonally inundated (PEMF/C) wetlands. Vegetation in the wetlands is dominated by reed canarygrass, velvetgrass (*Holcus lanatus* – FAC), tall false ryegrass (*Schedonorus arundinacea* – FAC), meadow foxtail (*Alopecurus pratensis* – FACW), timothy (*Phleum pretense* – FAC), western buttercup (*Ranuculus occidentalis* – FACW), and daggerleaf rush (*Juncus ensifolius* – FACW). Soils within the delineated wetland areas are generally a very dark gray (10YR 3/1) silty clay loam with strong brown (7.5YR 4/6) concentrations in 30 percent of the soil profile. Hydrologic indicators within the wetland were water within 10 to 8 inches of the surface and soil saturation at 4 to 6 inches below the surface. Oxidized rhizopheres were found along living root channels. A spring box has been excavated at the upper end (east) of wetland C. It appears that this spring box was used to water livestock at some point, however, that use has been abandoned.

Wetlands B, C and F all rated as Category III wetlands according to the Western Washington Wetland Rating Form (WRF) (Table 1).

Wetlands D (0.28 ac.) and E (0.75 ac.)

Wetlands D and E are slope HGM class wetlands located on the north side of the Type F stream on the northern portion of the property (Figs. 5/6). The stream forms the southern border of these wetlands. Vegetation is dominated by a red-osier dogwood (*Cornus alba* – FACW) and vine maple (*Acer circinatum* – FAC) shrub layer. The herbaceous layer is predominantly reed canarygrass, creeping buttercup, and skunk cabbage. Blackberry (*Rubus* spp.) patches occur throughout these wetland areas. Soils are a very dark gray (10YR 3/1) silt loam with dark brown (7.5YR 3/4) concentrations. These wetlands are hillside seeps (groundwater discharge) that are temporarily to seasonally saturated or inundated. Wetlands D and E rated as Category III wetlands (Table 1).

4.2 WETLAND FUNCTIONAL ASSESSMENT

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

Table 1. Wetland Function Rating

Wetland	Wetland Type	Water Quality Functions	Hydrologic Functions	Habitat Functions	Total Score	Wetland Category	Buffer Width High Intensity Land-Use
А	Depressional	7	5	7	19	III	150'
В	Depressional	7	5	6	18	III	135'
С	Slope	6	4	6	16	III	135'
D	Slope	5	5	7	17	III	150'
E	Slope	6	4	7	17	III	150'
F	Depressional	6	5	5	16	111	120'

4.3 NON-WETLANDS

The majority of the site is an open grassland plant community. A forest community occurs along the northern and western portion of the site. Vegetation in the grassland community is dominated by orchardgrass (*Dactylis glomerata* – FAC), vernalgrass (*Anthoxanthum odoratum* – FAC), velvetgrass, tall fescue, and timothy. Vegetation in the forested portions of the site consists of a Douglas fir (*Psuedotsuga menziesii* – FACU) tree layer. The shrub layer is sparse but consists of hazelnut (*Corylus cornuta* – FACU), vine maple and oso-berry (*Oemleria cerasiformis* – FACU). Ground cover is dominated by orchardgrass, bull thistle (*Cirsium vulgare* – FACU), tansy ragwort (*Senecio jacobaea* – UPL), and large patches of blackberries.

Photographs of the study and surrounding areas are shown in Photo-sheet 1.

5.0 REGULATORY ISSUES

The City of Camas Critical Areas Ordinance (16.53) provides for the protection of wetlands within the City's jurisdiction. The ordinance establishes protective buffers associated with wetlands and specifies that certain permits or approvals be obtained for projects containing wetlands or their respective buffers.

As mentioned above, the wetlands were rated using the updated wetland rating system developed by Ecology for western Washington (Hruby 2014). All of the wetlands rate as Category III wetlands. Wetland buffers are based on water quality and habitat scores. (Table 1). According to Table 16.53.040-1 of the critical areas ordinance, Category III wetlands with habitat scores between 5 and 7 in high intensity land-use areas have buffers that vary from 120 feet to 150 feet as given in Table 1 and shown on Figure 6.

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

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

6.0 LITERATURE CITED

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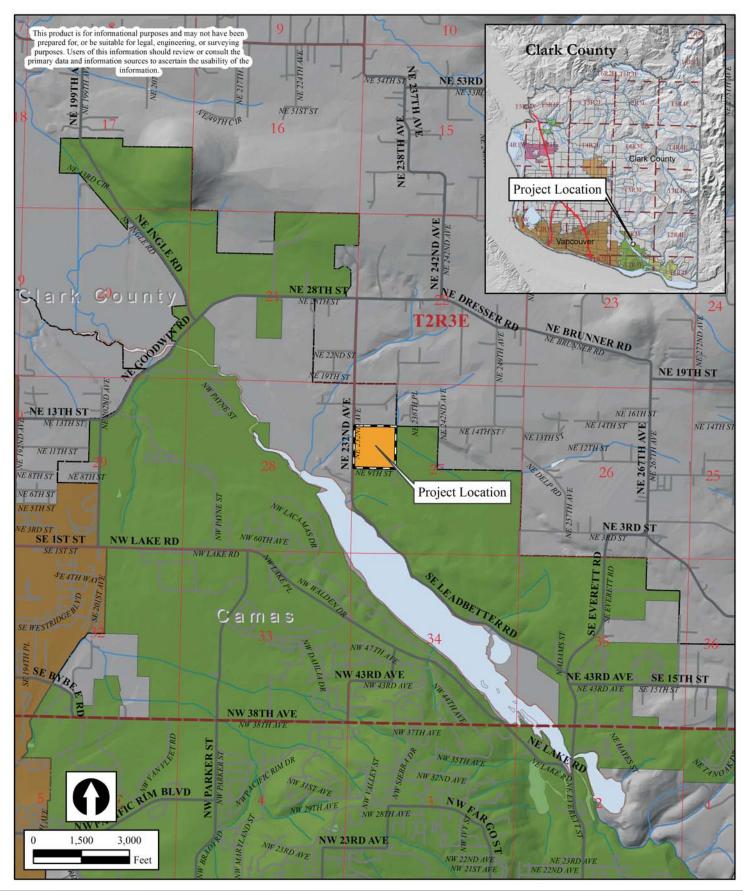
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APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Project Location Map Lacamas Heights Elementary School Camas, Washington



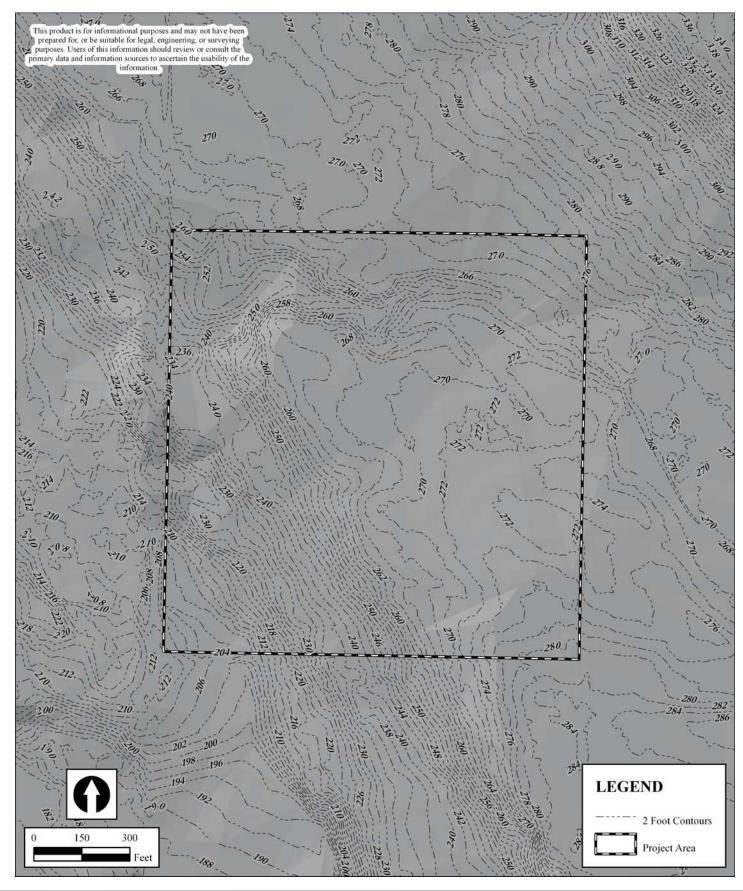
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E

W.M.

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Clark County LiDAR Topography Lacamas Heights Elementary School Camas, Washington



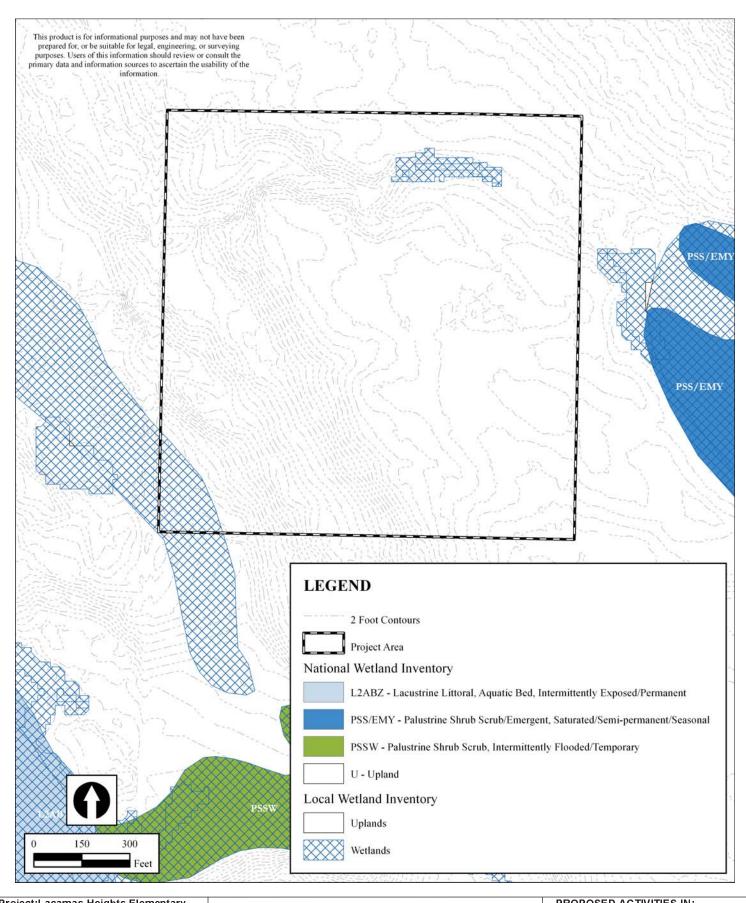
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Local and National Wetland Inventories Lacamas Heights Elementary School Camas, Washington



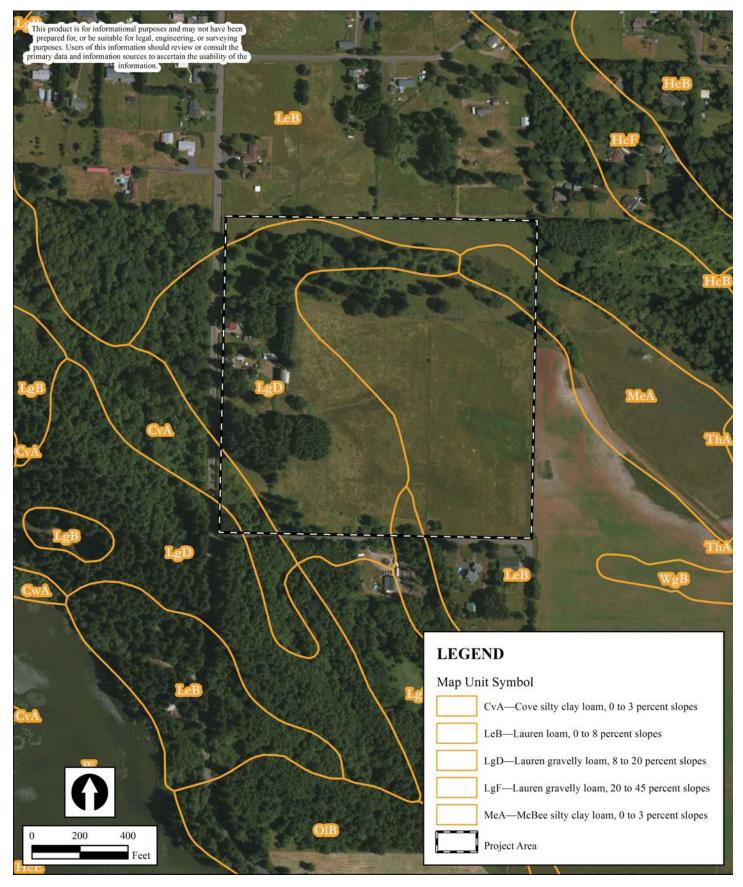
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland
Delineation/Determination

Clark County NRCS Soils
Lacamas Heights Elementary School
Camas, Washington



PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Wetland Delineation with Sample Plots Lacamas Heights Elementary School Camas, Washington



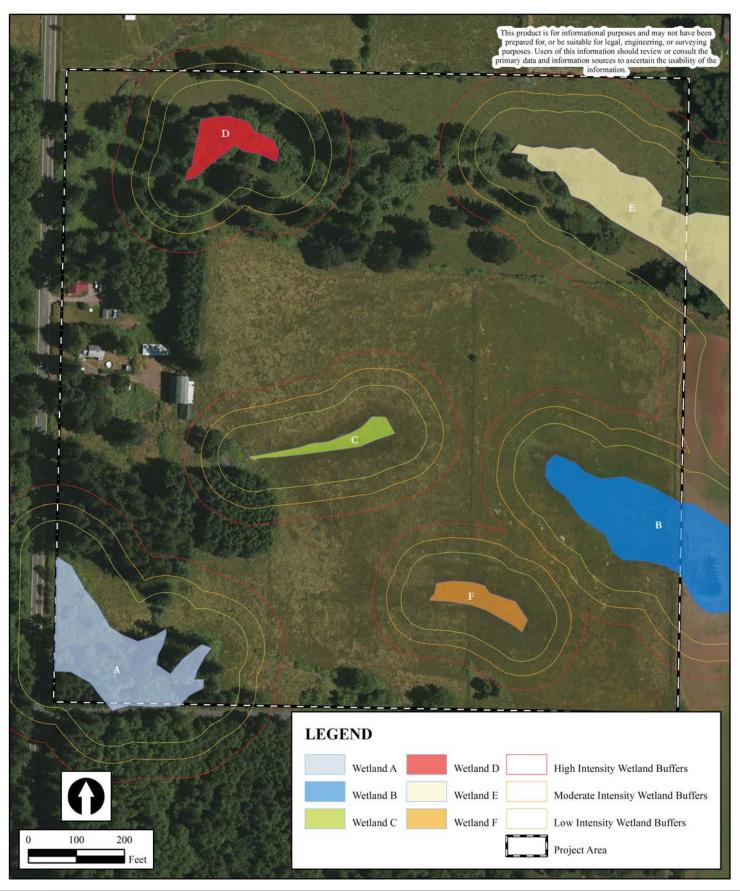
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Wetland Boundaries with Buffers Lacamas Heights Elementary School Camas, Washington



PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016













APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Project Photographs Lacamas Heights Elementary School Camas, Washington

The Resource Company, Inc.

ENVIRONMENTAL SERVICES - 615. HABITAT RESTORATION
8416 NE 81h Avenus, Vancouver, WA 36888897, 300 489 4855 fax. 300 489 4242

PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW ¼ of Section 27, T2N, R3E,

W.M., NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016 Photo Sheet 1

APPENDIX A – WETLAND DATA SHEETS

Project/Site: Weakley Project			City/Count	ty: <u>Camas/C</u>	/Clark County Sampling Date: 04/30/2014			
Applicant/Owner: Gerrick Weakley			State: Washington Sampling Point: 1					
Investigator(s): Kevin Grosz - The Rese	ource Company, Inc.			Section, To	Fownship, Range: <u>NW 27, T02N, R03E, W.M.</u>			
Landform (hillslope, terrace, etc.): hillsl	ope		Local reli	ef (concave,	convex, none): concave	Slope (%)): <u>0-3</u>	
Subregion (LRR): A								
Soil Map Unit Name: Lauren Loam, 0 to								
Are climatic / hydrologic conditions on t								
Are Vegetation, Soil, or F		-			ormal Circumstances" pres	ent? Yes⊠ No □		
Are Vegetation, Soil, or F					ed, explain any answers in			
SUMMARY OF FINDINGS - A							es, etc.	
Hydrophytic Vegetation Present?	Yes ⊠ No □							
Hydric Soil Present?	Yes ⊠ No □			he Sampled		• —		
Wetland Hydrology Present?	Yes ⊠ No 🗌		With	nin a Wetlar	nd? Yes ⊠ N	3 🔲		
Remarks:								
VEGETATION – Use scientific	names of plant							
Tree Stratum (Plot size: 5ft)		Absolute <u>% Cover</u>		t Indicator Status	Dominance Test works			
1					Number of Dominant Sp That Are OBL, FACW, o		(A)	
2.							` '	
3					Total Number of Domina Species Across All Strat		(B)	
4					Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5f	P)		= Total C	Cover	That Are OBL, FACW, o		(A/B)	
1	-,				Prevalence Index work	sheet:		
2.						Multiply by:		
3.					OBL species			
4					FACW species	x 2 =	_	
5					FAC species			
Harb Stratum (Diet size: 5#)			= Total C	Cover	FACU species			
Herb Stratum (Plot size: 5ft) 1. Ranuculus repens		20	Vec	EΔC	UPL species			
Schedonorus arundinacea		45	Yes	FAC	Column Totals:	(A)	(B)	
3. Holcus lanatus		20			Prevalence Index	= B/A =		
					Hydrophytic Vegetation	n Indicators:		
5					☐ Rapid Test for Hydro	phytic Vegetation		
6					Dominance Test is >			
7				-	☐ Prevalence Index is			
8					☐ Morphological Adapt data in Remarks	tations' (Provide suppor or on a separate sheet	rting)	
9					☐ Wetland Non-Vascu		,	
10					☐ Problematic Hydroph	nytic Vegetation¹ (Expla	ıin)	
11		95			¹ Indicators of hydric soil		must	
Woody Vine Stratum (Plot size: 5m)		33	- Total C	Jovei	be present, unless distu	bed or problematic.		
1					Hydrophytic			
2					Vegetation			
% Bare Ground in Herb Stratum 0			= Total C	Cover	Present? Yes	No 🗌		
Remarks:								

Sampling P	oint: 1
------------	---------

Depth	cription: (Describ Matrix			Red	lox Featu	<u>res</u>				
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textu	re	<u>Remarks</u>
<u>0-16</u>	10YR 3/1	80	<u>5 YR</u>	4/4	20	<u>C</u>	M	Siltclay	<u>/loam</u>	
							-			-
	-						•			
							-			
							<u> </u>	<u> </u>		
			_							
		-						-		
1= 0.0								- 	2,	
	oncentration, D=D Indicators: (App						ted Sand (ration: PL=Pore Lining, M=Matrix. rs for Problematic Hydric Soils ³ :
=		ilcable to				otea.)				•
☐ Histosol	(A1) pipedon (A2)			Sandy Redox Stripped Matri:				_		Muck (A10) Parent Material (TF2)
☐ Black Hi				.oamy Mucky	` '	F1) (excer	t MI RA 1	_		Shallow Dark Surface (TF12)
	n Sulfide (A4)			oamy Gleyed			in Live i	_	-	r (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Depleted Matr		-/		_	_	. (2.10.0
	ark Surface (A12)	` ,		Redox Dark S	. ,	3)		³	ndicato	rs of hydrophytic vegetation and
☐ Sandy M	lucky Mineral (S1)			Depleted Dark	Surface	(F7)			wetlar	nd hydrology must be present,
-	Bleyed Matrix (S4)		☐ F	Redox Depres	sions (F8	3)			unless	s disturbed or problematic.
	Layer (if present)									
Depth (in	ches):							Hydr	ic Soil	Present? Yes ⊠ No □
Remarks:								I		
HYDROLO										
•	drology Indicator								_	
-	cators (minimum o	f one requ								dary Indicators (2 or more required)
Surface	, ,			☐ Water-St			except ML	_RA	∐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2,
_	iter Table (A2)				4A, and 4	lB)				4A, and 4B)
Saturation Saturation				☐ Salt Crus	` ,				_	rainage Patterns (B10)
☐ Water M				Aquatic II						y-Season Water Table (C2)
_	nt Deposits (B2)			☐ Hydroger		. ,				aturation Visible on Aerial Imagery (C9)
	posits (B3)					neres along	_	oots (C3)		eomorphic Position (D2)
	at or Crust (B4)					ced Iron (C	,		_	nallow Aquitard (D3)
	osits (B5)			_		tion in Tille	,	,		AC-Neutral Test (D5)
	Soil Cracks (B6)					ed Plants ([)1) (LRR /	A)		aised Ant Mounds (D6) (LRR A)
	on Visible on Aeria	0 ,	` '	Other (E)	cpiain in F	Remarks)			⊔ Fr	ost-Heave Hummocks (D7)
	Vegetated Conca	ve Surrace	e (B8)							
Field Obser			🗖	5						
Surface Wat		Yes 🗌	No ⊠	Depth (inch						
Water Table	Present?	Yes ⊠	No 🗌	Depth (inch	es): <u>10</u>					
Saturation P		Yes 🛚	No 🗌	Depth (inche	es): <u>6</u>		We	tland Hy	drology	y Present? Yes ⊠ No □
	pillary fringe) corded Data (strea	am gauge,	monitori	ng well, aeria	l photos,	previous ir	spections), if availa	ble:	
Remarks:										

Project/Site: Weakley Project			City/Count	y: <u>Camas/C</u>	/Clark County Sampling Date: 04/30/2014			
Applicant/Owner: Gerrick Weakley			State: Washington Sampling Point: 2					
					ownship, Range: <u>NW 27, T02N, R03E, W.M.</u>			
Landform (hillslope, terrace, etc.): hillslope			Local relie	ef (concave,	convex, none): concave	Slope (%	%): <u>0-3</u>	
Subregion (LRR): A								
Soil Map Unit Name: Lauren Loam, 0 to 8 % s								
Are climatic / hydrologic conditions on the site								
Are Vegetation, Soil, or Hydrolo		-			ormal Circumstances" pres	sent? Yes⊠ No □	7	
Are Vegetation, Soil, or Hydrolo					ed, explain any answers in		-	
SUMMARY OF FINDINGS - Attach							res, etc.	
Hydrophytic Vegetation Present? Ye	es⊠ No □							
	es 🗌 No 🖾			ne Sampled		• 🖂		
Wetland Hydrology Present? Ye	es 🗌 No 🖾		With	nin a Wetlar	nd? Yes □ N	2 🖂		
Remarks:			-					
		_						
VEGETATION – Use scientific nam	nes of plan							
Tree Stratum (Plot size: 5ft)		Absolute <u>% Cover</u>			Dominance Test works			
1					Number of Dominant Sp That Are OBL, FACW, o		(A)	
2.							_	
3					Total Number of Domina Species Across All Strat		_ (B)	
4					Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5ft)			= Total C	Cover	That Are OBL, FACW, o		_ (A/B)	
1					Prevalence Index work	sheet:		
2					Total % Cover of:	Multiply by:		
3.					OBL species			
4					FACW species	x 2 =		
5					FAC species			
Llorb Stratum (Diet aire) Eff)			= Total C	Cover	FACU species			
Herb Stratum (Plot size: 5ft) 1. Dactylis glomerata		30	Vec	EACH	UPL species			
Dactylis glomerata Schedonorus arundinacea		35	Yes	FAC	Column Totals:	(A)	(B)	
Anthoxanthum odoratum				FACU	Prevalence Index	= B/A =	_	
4. Phleum pratense					Hydrophytic Vegetation	n Indicators:		
5					☐ Rapid Test for Hydro	phytic Vegetation		
6					Dominance Test is >			
7					☐ Prevalence Index is			
8					☐ Morphological Adapt data in Remarks	tations' (Provide supp or on a separate shee	orting et)	
9					☐ Wetland Non-Vascu		/	
10.					☐ Problematic Hydroph	nytic Vegetation ¹ (Exp	olain)	
11.		95			¹ Indicators of hydric soil		y must	
Woody Vine Stratum (Plot size: 5m)		33	- Total C	ovei	be present, unless distu	bed or problematic.		
1					Hydrophytic			
2					Vegetation	_		
% Bare Ground in Herb Stratum 0			= Total C	Cover	Present? Yes	s □ No ⊠		
Remarks:								

Profile Description: (Describe to the depth needed to document the indicator or con	firm the absence of indicators.)
Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type ¹ Loc ²	Tautius
0-16 10YR 3/2 100	Silt loam
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand	d Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1) ☐ Sandy Redox (S5)	☐ 2 cm Muck (A10)
☐ Histic Epipedon (A2) ☐ Stripped Matrix (S6)	Red Parent Material (TF2)
☐ Black Histic (A3) ☐ Loamy Mucky Mineral (F1) (except MLRA	(TF12)
☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)	☐ Other (Explain in Remarks)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)	3
☐ Thick Dark Surface (A12) ☐ Redox Dark Surface (F6)	³ Indicators of hydrophytic vegetation and
□ Sandy Mucky Mineral (S1) □ Depleted Dark Surface (F7) □ Sandy Gleyed Matrix (S4) □ Redox Depressions (F8)	wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present):	unless disturbed of problematic.
Type:	
Depth (inches):	Hydric Soil Present? Yes ⊠ No □
Remarks:	nyunc son Fresent: Tes 🖂 No 🗀
remans.	
HYDROLOGY	
HYDROLOGY Wetland Hydrology Indicators:	
	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) (except N	MLRA Water-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ 1, 2, 4A, and 4B)	WLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Note that the properties of the prope	WLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13)	WLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1)	WLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Remaining Remainin	WLRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3)
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Leaves (B9) (except Marks (B1) Saturation (A3) Salt Crust (B11) Water Marks (B1) Aquatic Invertebrates (B13) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1) Drift Deposits (B3) Oxidized Rhizospheres along Living Marks (B4) Presence of Reduced Iron (C4)	WALRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B9)) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Marks (B4) □ Algal Mat or Crust (B4) □ Presence of Reduced Iron (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils	WALRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Research (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except No. 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Relation (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks)	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B1)) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Radical Responsition (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRR Indication Visible on Aerial Imagery (B7) □ Sparsely Vegetated Concave Surface (B8)	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1)	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Note of the primary Indicators (B1) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Drift Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Research (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF (Explain in Remarks)) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): Water Table Present? Yes □ No □ Depth (inches): Saturation Present? Yes □ No □ Depth (inches):	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B1) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Drift Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Relation (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ Water Table Present? Yes □ No □ Depth (inches): □ Saturation Present? Yes □ No □ Depth (inches): □ (includes capillary fringe)	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Note of the primary Indicators (B1) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Drift Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Research (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF (Explain in Remarks)) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): Water Table Present? Yes □ No □ Depth (inches): Saturation Present? Yes □ No □ Depth (inches):	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B1)) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Marks (B4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ Water Table Present? Yes □ No □ Depth (inches): □ Saturation Present? Yes □ No □ Depth (inches): □ Vincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B1) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Drift Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Relation (C4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ Water Table Present? Yes □ No □ Depth (inches): □ Saturation Present? Yes □ No □ Depth (inches): □ (includes capillary fringe)	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) □ Surface Water (A1) □ Water-Stained Leaves (B9) (except Marks (B1)) □ High Water Table (A2) 1, 2, 4A, and 4B) □ Saturation (A3) □ Salt Crust (B11) □ Water Marks (B1) □ Aquatic Invertebrates (B13) □ Sediment Deposits (B2) □ Hydrogen Sulfide Odor (C1) □ Drift Deposits (B3) □ Oxidized Rhizospheres along Living Marks (B4) □ Iron Deposits (B5) □ Recent Iron Reduction in Tilled Soils □ Surface Soil Cracks (B6) □ Stunted or Stressed Plants (D1) (LRF □ Inundation Visible on Aerial Imagery (B7) □ Other (Explain in Remarks) □ Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes □ No □ Depth (inches): □ Water Table Present? Yes □ No □ Depth (inches): □ Saturation Present? Yes □ No □ Depth (inches): □ Vincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	WILRA Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Roots (C3) Geomorphic Position (D2) Shallow Aquitard (D3) (C6) FAC-Neutral Test (D5) R A) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)

Project/Site: Weakley Project			City/Count	ty: <u>Camas/C</u>	/Clark County Sampling Date: 04/30/2014			
Applicant/Owner: Gerrick Weakley			State: Washington Sampling Point: 3					
					Township, Range: <u>NW 27, T02N, R03E, W.M.</u>			
Landform (hillslope, terrace, etc.): hillslo	ope		Local reli	ef (concave,	convex, none): concave	Slope (%): <u>(</u>	0-3	
Subregion (LRR): A								
Soil Map Unit Name: Lauren Loam, 0 to								
Are climatic / hydrologic conditions on t								
Are Vegetation, Soil, or H		-			ormal Circumstances" pres	sent? Yes ⊠ No □		
Are Vegetation, Soil, or H					ed, explain any answers in			
SUMMARY OF FINDINGS - A							, etc.	
Hydrophytic Vegetation Present?	Yes ⊠ No □							
Hydric Soil Present?	Yes ⊠ No □			he Sampled nin a Wetlar		۰ 🗆		
Wetland Hydrology Present?	Yes 🛛 No 🗌		Witi	iiii a vvetiai	iu: res⊠ iv	о <u>П</u>		
Remarks:								
VEGETATION – Use scientific	names of plant							
Tree Stratum (Plot size: 5ft)		Absolute <u>% Cover</u>		t Indicator Status	Dominance Test works			
1					Number of Dominant Sp That Are OBL, FACW, o		(A)	
2.							()	
3					Total Number of Domina Species Across All Strat		B)	
4					Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5ff	.		= Total C	Cover		or FAC: <u>100</u> (/	A/B)	
1	,				Prevalence Index work	sheet:		
2.					Total % Cover of:	Multiply by:		
3.						x 1 =		
4					FACW species	x 2 =		
5						x 3 =		
Harb Stratum (Diet aire: Eff)			= Total C	Cover		x 4 =		
Herb Stratum (Plot size: 5ft) 1. Ranuculus occidentalis		20	Vac	EAC\\\		x 5 =		
Schedonorus arundinacea		25	Yes	FAC	Column Totals:	(A)	(B)	
3. Holcus lanatus		40			Prevalence Index	= B/A =		
				· · · · · · · · · · · · · · · · · · ·	Hydrophytic Vegetatio	n Indicators:		
5					☐ Rapid Test for Hydro	ophytic Vegetation		
6					Dominance Test is >			
7				-	☐ Prevalence Index is			
8					☐ Morphological Adapt data in Remarks	tations ¹ (Provide supportin or on a separate sheet)	ıg	
9					☐ Wetland Non-Vascu			
10					☐ Problematic Hydropl	hytic Vegetation ¹ (Explain))	
11		95				and wetland hydrology mu	ust	
Woody Vine Stratum (Plot size: 5m)		90	- Total C	Jovei	be present, unless distu	rbed or problematic.		
1					Hydrophytic			
2					Vegetation			
% Para Ground in Horb Stratum 0			= Total (Cover	Present? Yes	s⊠ No□		
% Bare Ground in Herb Stratum 0 Remarks:								

Sampling Point: 3

	<u>atrix</u>			ox Feature		2			
(inches) Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	<u>Textur</u>	<u>e</u>	Remarks
0-16 10YR 3/1	80	<u>5 YF</u>	R 4/4	20	<u>C</u>	<u>M</u>	Siltclay	loam_	
				_					
				_					
		<u> </u>							
¹ Type: C=Concentration, D	D=Depletion,	RM=Red	uced Matrix, C	S=Covere	ed or Coat	ed Sand G	rains.	² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (A									rs for Problematic Hydric Soils ³ :
☐ Histosol (A1)			Sandy Redox (S5)] 2 cm	Muck (A10)
☐ Histic Epipedon (A2)			Stripped Matrix						Parent Material (TF2)
☐ Black Histic (A3)			_oamy Mucky N	•		MLRA 1)		-	Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)			_oamy Gleyed	,	2)] Othe	r (Explain in Remarks)
☐ Depleted Below Dark S	, ,		Depleted Matrix				3.	t	
☐ Thick Dark Surface (A1			Redox Dark Su	, ,			٩Ir		rs of hydrophytic vegetation and
☐ Sandy Mucky Mineral (\$☐ Sandy Gleyed Matrix (\$			Depleted Dark : Redox Depress	,	-7)				nd hydrology must be present, s disturbed or problematic.
Restrictive Layer (if prese	•		redux Depless	510115 (1 0)				uilles	s disturbed or problematic.
Type:									
Depth (inches):							Hydri	ic Sail	Present? Yes ⊠ No □
Remarks:							пуш	C 30II	Fresent: les 🖂 No 🗌
Wetland Hydrology Indica									
Wetland Hydrology Indica Primary Indicators (minimul		uired; che			(D0) (idary Indicators (2 or more required)
Wetland Hydrology Indication Primary Indicators (minimum Surface Water (A1)		uired; che	☐ Water-Sta	ined Leav		xcept MLI	RA		ater-Stained Leaves (B9) (MLRA 1, 2,
Wetland Hydrology Indicators (minimum ☐ Surface Water (A1) ☐ High Water Table (A2)		uired; che	☐ Water-Sta	ined Leav		xcept MLI	RA	□ W	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3)		uired; che	☐ Water-Sta 1, 2, 4. ☐ Salt Crust	ined Leav A, and 4E (B11)	3)	xcept MLI	RA	□ W:□ Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10)
Wetland Hydrology Indicators (minimulary Indicators (minimulary Indicators (minimulary Indicators (Minimulary Indicators (M1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1)	m of one req	uired; che	☐ Water-Sta 1, 2, 4. ☐ Salt Crust ☐ Aquatic In	ined Leav A, and 4E (B11) vertebrate	B) es (B13)	xcept MLI	RA	□ W:□ Dr□ Dr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	m of one req	uired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In	ined Leaver A, and 4E (B11) vertebrate Sulfide O	es (B13) dor (C1)			☐ Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9)
Wetland Hydrology Indicators (minimum Indicators (minimum Indicators (Minimum Indicators (Minimum Indicators (Minimum Indicators (M1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one req	uired; che	□ Water-Sta 1, 2, 4 □ Salt Crust □ Aquatic In □ Hydrogen □ Oxidized F	ined Leav A, and 4E (B11) vertebrate Sulfide O Rhizosphe	es (B13) dor (C1) eres along	Living Roc		 □ W: □ Dr □ Dr □ Sa □ Ge 	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2)
Wetland Hydrology Indicators (minimumous Indicators (minimumous Indicators (minimumous Indicators (minimumous Indicators (minimumous Indicators (Mater Mater Table (A2) □ Water Marks (B1) □ Sediment Deposits (B2) □ Drift Deposits (B3) □ Algal Mat or Crust (B4)	m of one req	uired; che	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence	ined Leaven A, and 4E (B11) vertebrate Sulfide ORhizosphe of Reduce	es (B13) dor (C1) eres along ed Iron (C4	Living Roc 1)	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ Sr	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) comorphic Position (D2) allow Aquitard (D3)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	m of one req	uired; che	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	ined Leaven A, and 4E (B11) vertebrate Sulfide ORhizosphe of Reduction Reduction	es (B13) dor (C1) eres along ed Iron (C4 on in Tille	Living Roc 4) d Soils (C6	ots (C3)	Wa	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	m of one req		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaven A, and 4E (B11) vertebrate Sulfide ORhizosphe of Reduce Reducer Stressed	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roc 4) d Soils (C6	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) hC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Ad	m of one req) 6) erial Imagery	, (B7)	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	ined Leaven A, and 4E (B11) vertebrate Sulfide ORhizosphe of Reduce Reducer Stressed	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roc 4) d Soils (C6	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Actions (B6)	m of one req) 6) erial Imagery	, (B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or	ined Leaven A, and 4E (B11) vertebrate Sulfide ORhizosphe of Reduce Reducer Stressed	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roc 4) d Soils (C6	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) hC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Co	m of one req) 6) erial Imagery ncave Surfac	/ (B7) ce (B8)	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	Mand Leaver A, and 4E (B11) Vertebrate Sulfide ORhizosphe of Reduction Reduc	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roc 4) d Soils (C6	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) hC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Co Field Observations: Surface Water Present?	m of one req) 6) erial Imagery ncave Surfac	/ (B7) ce (B8) No ⊠	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed blain in Research	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roc 4) d Soils (C6	ots (C3)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) hC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A)
Wetland Hydrology Indica Primary Indicators (minimus) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Co Field Observations: Surface Water Present?	m of one req 3) erial Imagery ncave Surface Yes Yes Yes	/ (B7) ce (B8) No ⊠ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In: Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed blain in Research Stress	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D	Living Roo 4) d Soils (C6 1) (LRR A	ots (C3)	Wi	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) allow Aquitard (D3) aC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) ost-Heave Hummocks (D7)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one req (i) (ii) (iii) (iii)	/ (B7) ce (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed Dain in Research Stressed Diain in Research Diain i	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D emarks)	Living Roc 4) d Soils (C6 1) (LRR A	ots (C3) i)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9) ecomorphic Position (D2) hallow Aquitard (D3) hC-Neutral Test (D5) hissed Ant Mounds (D6) (LRR A)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Cofield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one req (i) (ii) (iii) (iii)	/ (B7) ce (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed Dain in Research Stressed Diain in Research Diain i	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D emarks)	Living Roc 4) d Soils (C6 1) (LRR A	ots (C3) i)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 comorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) cost-Heave Hummocks (D7)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Accompany Vegetated Co	m of one req (i) (ii) (iii) (iii)	/ (B7) ce (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed Dain in Research Stressed Diain in Research Diain i	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D emarks)	Living Roc 4) d Soils (C6 1) (LRR A	ots (C3) i)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	atter-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) atturation Visible on Aerial Imagery (C9) comorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) haised Ant Mounds (D6) (LRR A) host-Heave Hummocks (D7)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Cofield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one req (i) (ii) (iii) (iii)	/ (B7) ce (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed Dain in Research Stressed Diain in Research Diain i	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D emarks)	Living Roc 4) d Soils (C6 1) (LRR A	ots (C3) i)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 comorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) aised Ant Mounds (D6) (LRR A) cost-Heave Hummocks (D7)
Primary Indicators (minimule Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Active Sparsely Vegetated Coffield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (see Active Surface)	m of one req (i) (ii) (iii) (iii)	/ (B7) ce (B8) No ⊠ No □ No □	Water-Sta 1, 2, 4. Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro Stunted or Other (Exp	ined Leaven A, and 4E (B11) vertebrate Sulfide O Rhizosphe of Reduct Stressed Dain in Research Stressed Diain in Research Diain i	es (B13) dor (C1) eres along ed Iron (C4 don in Tille I Plants (D emarks)	Living Roc 4) d Soils (C6 1) (LRR A	ots (C3) i)	☐ W: ☐ Dr ☐ Dr ☐ Sa ☐ Ge ☐ St ☐ FA	ater-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ainage Patterns (B10) y-Season Water Table (C2) aturation Visible on Aerial Imagery (C9 comorphic Position (D2) hallow Aquitard (D3) AC-Neutral Test (D5) hised Ant Mounds (D6) (LRR A) cost-Heave Hummocks (D7)

Project/Site: Weakley Project		City/Coun	ty: <u>Camas/C</u>	Clark County Sampling Date: 04/30/2014			
Applicant/Owner: Gerrick Weakley		State: Washington Sampling Point: 4					
Investigator(s): Kevin Grosz - The Resource Company, Ir							
Landform (hillslope, terrace, etc.): hillslope		Local rel	ief (concave,	convex, none): concave	Slope (%): <u>0-</u>	-3	
Subregion (LRR): A							
Soil Map Unit Name: Lauren Loam, 0 to 8 % slopes (LeB							
Are climatic / hydrologic conditions on the site typical for t							
Are Vegetation, Soil, or Hydrology s	-			ormal Circumstances" pres			
Are Vegetation, Soil, or Hydrology na				ed, explain any answers ir			
SUMMARY OF FINDINGS - Attach site ma						etc.	
Hydrophytic Vegetation Present? Yes ⊠ No [7						
Hydric Soil Present? Yes ☐ No 🖸			he Sampled		o M		
Wetland Hydrology Present? Yes ☐ No ∑	₃	Wit	hin a Wetlar	nd? Yes □ N	0 🔯		
Remarks:							
VEGETATION – Use scientific names of pla							
Tree Stratum (Plot size: 5ft)	Absolute <u>% Cover</u>		t Indicator ? Status	Dominance Test works			
1				Number of Dominant Sp That Are OBL, FACW, o		A)	
2.						,	
3				Total Number of Domina Species Across All Strat		3)	
4				Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5ft)		= Total (Cover		or FAC: <u>33</u> (A	√B)	
1				Prevalence Index work	sheet:		
2.				Total % Cover of:	Multiply by:		
3.					x 1 =		
4				FACW species	x 2 =		
5			·		x 3 =		
Harb Stratum (Plot aire) 5ft)		= Total (Cover		x 4 =		
Herb Stratum (Plot size: 5ft) 1. Dactylis glomerata	30	Vec	FACII		x 5 =		
Dactylis glomerata Schedonorus arundinacea		No	FAC	Column Lotals:	(A) ((B)	
3. Anthoxanthum odoratum				Prevalence Index	= B/A =		
4. Holcus lanatus				Hydrophytic Vegetatio	n Indicators:		
5				☐ Rapid Test for Hydro	ophytic Vegetation		
6				Dominance Test is >			
7			·	☐ Prevalence Index is			
8				☐ Morphological Adap	tations ¹ (Provide supporting or on a separate sheet)	3	
9				☐ Wetland Non-Vascu			
10.				☐ Problematic Hydropl	hytic Vegetation ¹ (Explain)		
11	90				and wetland hydrology mus	st	
Woody Vine Stratum (Plot size: 5m)	<u>30</u>	- Total V	Joven	be present, unless distu	rbed or problematic.		
1				Hydrophytic			
2			·	Vegetation	_		
% Bare Ground in Herb Stratum 0		= Total (Cover	Present? Yes	s □ No ⊠		
Remarks:							

Depth	Matrix			<u>Re</u> do:	x Features			sence of indicators.)
(inches)	Color (moist)	<u>%</u>	Colo	r (moist)	% Type ¹	Loc ²	Textu	re Remarks
0-16	10YR 3/2	100					Silt loa	<u>m</u>
					·			
		-						
		-			·			
					· 			
¹Type: C=C	Concentration, D=Dep	oletion F	M=Red	uced Matrix CS	S=Covered or Coate	d Sand Gr	ains	² Location: PL=Pore Lining, M=Matrix.
	Indicators: (Applic					u Oanu Oi		dicators for Problematic Hydric Soils ³ :
☐ Histosol				Sandy Redox (S				2 cm Muck (A10)
	pipedon (A2)			Stripped Matrix (Ī	Red Parent Material (TF2)
☐ Black Hi	istic (A3)		□ L	oamy Mucky M	ineral (F1) (except	MLRA 1)		Very Shallow Dark Surface (TF12)
☐ Hydroge	en Sulfide (A4)		□ L	₋oamy Gleyed N	Matrix (F2)			Other (Explain in Remarks)
☐ Depleted	d Below Dark Surfac	e (A11)		Depleted Matrix	(F3)			
	ark Surface (A12)			Redox Dark Sur	, ,		³ l	ndicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark S	, ,			wetland hydrology must be present,
-	Bleyed Matrix (S4)		_	Redox Depressi	ons (F8)		1	unless disturbed or problematic.
Type:	Layer (if present):							
, —	nches):						l	
Берит (п							Hydr	ic Soil Present? Yes ☐ No ☒
IYDROLO								
•	drology Indicators							
	-	one requ			`			0 1 1 1 (0 1 1)
Surface	Water (A1)		irea; cne	eck all that apply	-			Secondary Indicators (2 or more required)
I HIMD WAS	` ,		irea; cne	☐ Water-Stair	ned Leaves (B9) (ex	ccept MLR	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)		irea; cne	☐ Water-Stair	ned Leaves (B9) (ex a, and 4B)	ccept MLR	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
Saturation	ater Table (A2) on (A3)		irea; cne	☐ Water-Stain 1, 2, 4A ☐ Salt Crust (ned Leaves (B9) (ex a, and 4B) B11)	ccept MLR	RA	☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) ☐ Drainage Patterns (B10)
☐ Saturatio	ater Table (A2) on (A3) larks (B1)		irea; cne	☐ Water-Stain 1, 2, 4A ☐ Salt Crust (☐ Aquatic Inv	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13)	ccept MLR	RA	 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2)
☐ Saturation☐ Water M☐ Sedimer	ater Table (A2) on (A3) larks (B1) nt Deposits (B2)		irea, cne	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13) Sulfide Odor (C1)			 □ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9)
☐ Saturation ☐ Water M☐ Sedimer ☐ Drift Dep	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)		irea, cne	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13) Gulfide Odor (C1) hizospheres along	Living Roof		 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2)
Saturation Water M Sedimer Drift Dep Algal Ma	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		irea, cne	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along b of Reduced Iron (C4	Living Root	ts (C3)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3)
Saturation Water M Sedimer Drift Dep Algal Ma	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		irea, che	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along I f Reduced Iron (C4 n Reduction in Tilled	Living Roof) I Soils (C6)	ts (C3)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	magany		Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or	ned Leaves (B9) (example of the second secon	Living Roof) I Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface	ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial		(B7)	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or	ned Leaves (B9) (ex a, and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along I f Reduced Iron (C4 n Reduction in Tilled	Living Roof) I Soils (C6)	ts (C3)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave		(B7)	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or	ned Leaves (B9) (example of the second secon	Living Roof) I Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations:	Surface	(B7) e (B8)	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence o Recent Iror Stunted or Other (Expl	ned Leaves (B9) (example), and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along to the frequency of Reduced Iron (C4) n Reduction in Tilled Stressed Plants (December 2)	Living Roof) I Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Observation	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations:	e Surface	(B7) e (B8) No ⊠	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (example of the property of th	Living Roof) I Soils (C6)	ts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Water M Sediment Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obsert Surface Water Table	ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es	(B7) e (B8) No ⊠ No ⊠	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (ex., and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along land freduced Iron (C4) n Reduction in Tilled Stressed Plants (Dr. lain in Remarks) b):	Living Roof) I Soils (C6) I) (LRR A)	tts (C3)	 Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Saturation Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F	ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es	(B7) e (B8) No ⊠	Water-Stair 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (example of the property of th	Living Roof) I Soils (C6) I) (LRR A)	tts (C3)	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Saturation Sedimer Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es /es /es	(B7) e (B8) No ⊠ No ⊠ No ⊠	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (ex., and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along life Reduced Iron (C4 n Reduction in Tilled Stressed Plants (Distain in Remarks)):	Living Roof) I Soils (C6) I) (LRR A) Wetla	ts (C3)) and Hye	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) drology Present? Yes □ No ☒
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es /es /es	(B7) e (B8) No ⊠ No ⊠ No ⊠	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (ex., and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along life Reduced Iron (C4 n Reduction in Tilled Stressed Plants (Distain in Remarks)):	Living Roof) I Soils (C6) I) (LRR A) Wetla	ts (C3)) and Hye	Water-Stained Leaves (B9) (MLRA 1, 2,
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es /es /es	(B7) e (B8) No ⊠ No ⊠ No ⊠	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (ex., and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along life Reduced Iron (C4 n Reduction in Tilled Stressed Plants (Distain in Remarks)):	Living Roof) I Soils (C6) I) (LRR A) Wetla	ts (C3)) and Hye	Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7) drology Present? Yes □ No ☒
Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aerial I y Vegetated Concave rvations: ter Present?	e Surface /es /es /es /es /es	(B7) e (B8) No ⊠ No ⊠ No ⊠	Water-Stain 1, 2, 4A Salt Crust (Aquatic Inv Hydrogen S Oxidized R Presence of Recent Iror Stunted or Other (Expl	ned Leaves (B9) (ex., and 4B) B11) ertebrates (B13) Sulfide Odor (C1) hizospheres along life Reduced Iron (C4 n Reduction in Tilled Stressed Plants (Distain in Remarks)):	Living Roof) I Soils (C6) I) (LRR A) Wetla	ts (C3)) and Hye	Water-Stained Leaves (B9) (MLRA 1, 2,

Project/Site: Weakley Project		Sampling Date: 04/30/2014					
Applicant/Owner: Gerrick Weakley				Sampling Point: 5			
Investigator(s): Kevin Grosz - The Resource Company, Inc.			Section, To	02N, R03E, W.M.			
Landform (hillslope, terrace, etc.): hillslope		_Local r	elief (concave,	, convex, none): concave	Slope (%): 8 to 10		
Subregion (LRR): A	Lat: Long:				Datum:		
Soil Map Unit Name: Lauren gravelly loam, 8 to 20 percent							
Are climatic / hydrologic conditions on the site typical for thi							
Are Vegetation, Soil, or Hydrology sig	-			ormal Circumstances" pres			
Are Vegetation, Soil, or Hydrology natu				ed, explain any answers ir			
SUMMARY OF FINDINGS – Attach site map			,	•	•		
Hydrophytic Vegetation Present? Yes ⊠ No □							
Hydric Soil Present? Yes ⊠ No □		Is the Sampled Area within a Wetland? Yes ⊠ No □					
Wetland Hydrology Present? Yes ⊠ No □		l w	illilli a vvellai	iur res 🖂 N	0 🗀		
Remarks:							
VEGETATION – Use scientific names of plan							
Tree Stratum (Plot size: 5ft)			ant Indicator es? Status	Dominance Test works			
1				Number of Dominant Sp That Are OBL, FACW, o			
2.							
3.				Total Number of Domina Species Across All Strat			
4							
				Percent of Dominant Sp That Are OBL, FACW, o	or FAC: 100 (A/B)		
Sapling/Shrub Stratum (Plot size: 5ft)				Prevalence Index work	rehoot:		
1					Multiply by:		
2					x 1 =		
4					x 2 =		
5.				FAC species	x 3 =		
				FACU species	x 4 =		
Herb Stratum (Plot size: 5ft)		.,	5.4.0 1.4		x 5 =		
Ranuculus occidentallis Halava Israetus	00		FACW_	Column Totals:	(A) (B)		
Holcus lanatus Schedonorus arundinacea		Yes Yes	<u>FAC</u> FAC	Prevalence Index	= B/A =		
Scriedonorus arundinacea Poa pratensis				Hydrophytic Vegetatio			
5				☐ Rapid Test for Hydro			
6.				□ Dominance Test is >	> 50%		
7				☐ Prevalence Index is	≤3.0 ¹		
8					tations ¹ (Provide supporting		
9				data in Remarks Wetland Non-Vascu	or on a separate sheet)		
10					hytic Vegetation ¹ (Explain)		
11					and wetland hydrology must		
Woody Vine Stratum (Plot size: 5m)	90	= Tota	l Cover	be present, unless distu			
1				Hydrophytic			
2				Vegetation			
% Para Ground in Harb Stratum 0		= Tota	l Cover		s⊠ No□		
% Bare Ground in Herb Stratum 0 Remarks:							

Depth	cription: (Describ Matrix			Red	lox Featur	es				
(inches)	Color (moist)	%_	Colo	or (moist)	%	Type ¹	Loc ²	Textur	<u>e</u>	<u>Remarks</u>
0-6	10YR 3/2	80	<u>7.5`</u>	YR 4/6	20	<u>C</u>	<u>M</u>	Siltclay	loam	
6-16	10YR 3/1	70	7.5Y	′R 4/6	30	<u>C</u>	M	siltclay	oam	
										·
	oncentration, D=D Indicators: (App	•					ed Sand G			cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histosol		iicabie ic				itea.)				m Muck (A10)
	oipedon (A2)			Sandy Redox Stripped Matri:				_	-	l Parent Material (TF2)
	stic (A3)			Loamy Mucky	` '	1) (excep	t MLRA 1)			y Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed	•		,			er (Explain in Remarks)
☐ Depleted	d Below Dark Surfa	ace (A11)	\boxtimes	Depleted Matr	ix (F3)	•				,
	ark Surface (A12)			Redox Dark S	•			3lr		ors of hydrophytic vegetation and
	lucky Mineral (S1)			Depleted Dark	•	•				and hydrology must be present,
-	Bleyed Matrix (S4)			Redox Depres	sions (F8))			unle	ss disturbed or problematic.
_	Layer (if present)									
Type:	ches):			_						
рерит (ш	iches)			•				Hydri	c Soi	I Present? Yes ⊠ No □
IYDROLO										_
•	drology Indicator		uired: ch	eck all that an	nlv)				Seco	indary Indicators (2 or more required)
	Water (A1)	TOTIC TCQ	uncu, cri	U Water-St		ves (B9) (e	except MLI	RA		Vater-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)				4A, and 4					4A, and 4B)
☐ Saturation				☐ Salt Crus		,				Prainage Patterns (B10)
	larks (B1)			Aquatic II	` '	es (B13)				Ory-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydroger	Sulfide C	Odor (C1)				saturation Visible on Aerial Imagery (C9)
	posits (B3)				Rhizosph	eres along	Living Roo	ots (C3)	_	Geomorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence	of Reduc	ed Iron (C	4)		□ s	shallow Aquitard (D3)
☐ Iron Dep	oosits (B5)			☐ Recent In	on Reduct	tion in Tille	d Soils (C6	3)	□ F	AC-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted of	r Stresse	d Plants (D	1) (LRR A	.)	\square R	Raised Ant Mounds (D6) (LRR A)
☐ Inundati	on Visible on Aeria	l Imagery	(B7)	Other (Ex	oplain in R	emarks)			□ F	rost-Heave Hummocks (D7)
☐ Sparsely	Vegetated Conca	ve Surfac	e (B8)							
Field Obser	rvations:									
Surface Wat	ter Present?	Yes 🗌	No 🖂	Depth (inche	es):					
Water Table		Yes 🗌	No 🖂	Depth (inche						_
Saturation F		Yes	No 🛚	Depth (inch	es):		Wet	land Hyd	Irolog	yy Present? Yes ⊠ No 🗌
	pillary fringe) ecorded Data (strea	am gauge	, monitor	ring well, aeria	l photos, p	revious in	spections),	if availal	ole:	
	·									
Remarks:										

Project/Site: Weakley Project			City/Count	ty: <u>Camas/C</u>	Sampling Date: 04/30/			
Applicant/Owner: Gerrick Weakley					State: Washington	Sampling Point: 6		
Investigator(s): Kevin Grosz - The Resour	rce Company, Inc.	Township, Range: <u>NW 27, T02N, R03E, W.M.</u>						
Landform (hillslope, terrace, etc.): hillslop	e		Local reli	ef (concave,	convex, none): concave	Slope (%): <u>8-15</u>	
Subregion (LRR): A								
Soil Map Unit Name: Lauren Gravelly Loa								
Are climatic / hydrologic conditions on the								
Are Vegetation, Soil, or Hyd		-				sent? Yes ⊠ No Γ	٦	
Are Vegetation, Soil, or Hyd					ed, explain any answers in		_	
SUMMARY OF FINDINGS - Att							res, etc.	
Hydrophytic Vegetation Present?	Yes ⊠ No □							
Hydric Soil Present?	Yes ☐ No ⊠			he Sampled		• M		
Wetland Hydrology Present?	Yes ☐ No 🖂		Witi	nin a Wetlar	nd? Yes □ N	0 🖾		
Remarks:								
VEGETATION – Use scientific r	names of plan							
Tree Stratum (Plot size: 5ft)		Absolute <u>% Cover</u>		t Indicator Status	Dominance Test works			
1					Number of Dominant Sp That Are OBL, FACW, o		(A)	
2					Total Number of Domina			
3					Species Across All Strat		(B)	
4					Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5ft)			= Total (Cover	That Are OBL, FACW, o		(A/B)	
1					Prevalence Index work	sheet:		
2.					Total % Cover of:	Multiply by:	· <u>·</u>	
3.					OBL species	x 1 =		
4					FACW species	x 2 =		
5					FAC species			
Herb Stratum (Plot size: 5ft)			= Total (Cover	FACU species			
1.5		20	Yes	FACII	UPL species			
Anthoxanthum odoratum				FACU	Column Totals:	(A)	(B)	
3. Holcus lanatus					Prevalence Index	= B/A =	_	
4.					Hydrophytic Vegetation	n Indicators:		
5					☐ Rapid Test for Hydro			
6					Dominance Test is >			
7					☐ Prevalence Index is			
8					☐ Morphological Adapt data in Remarks	tations" (Provide support on a separate she	et)	
9					☐ Wetland Non-Vascu			
10					☐ Problematic Hydroph	nytic Vegetation ¹ (Exp	olain)	
11.		65			¹ Indicators of hydric soil		gy must	
Woody Vine Stratum (Plot size: 5m)		<u> </u>	rotare	J0 V C I	be present, unless distu	rbed or problematic.		
1					Hydrophytic			
2				-	Vegetation			
% Bare Ground in Herb Stratum 0			= Total (Cover	Present? Yes	s □ No ⊠		
Remarks:					l			

Depth	Matrix			Redo	x Features				
(inches)	Color (moist)	%	Colo	or (moist)	% Type ¹	Loc ²	Textur	e Remarks	
0-16	10YR 3/2	100					gravsilt	<u>loam</u>	
					· · · · · · · · · · · · · · · · · · ·				
							-		
1Type: C=C	Concentration D=D	enletion	PM=Pad	luced Matrix CS	S=Covered or Coate	ad Sand Gr	raine	² Location: PL=Pore Lining, M=	Matrix
	Indicators: (Appl	•				u Sanu Gi		dicators for Problematic Hydric	
☐ Histosol				Sandy Redox (S				2 cm Muck (A10)	
	pipedon (A2)			Stripped Matrix			Ē	Red Parent Material (TF2)	
	istic (A3)				Ineral (F1) (except	MLRA 1)		Very Shallow Dark Surface (TF	12)
☐ Hydroge	en Sulfide (A4)			Loamy Gleyed I	Matrix (F2)	ŕ		Other (Explain in Remarks)	
	d Below Dark Surfa	ice (A11)		Depleted Matrix	, ,				
	ark Surface (A12)			Redox Dark Sui	` '		3lı	ndicators of hydrophytic vegetation	
	Mucky Mineral (S1)			Depleted Dark S				wetland hydrology must be prese	ent,
-	Gleyed Matrix (S4)	_	Ш	Redox Depress	ions (F8)		1	unless disturbed or problematic.	
_	Layer (if present)								
Type:	nches):						1		_
Deptii (iii	icries)			-			Hydr	c Soil Present? Yes 🗌 No	\boxtimes
Wetland Hy	drology Indicator							Occasional and instance (Occasional	and the state of t
Wetland Hy	drology Indicator		uired; ch		•			Secondary Indicators (2 or more	
Wetland Hy Primary Indi Surface	ydrology Indicator icators (minimum o Water (A1)		uired; ch	☐ Water-Stai	ned Leaves (B9) (e	xcept MLF	RA	☐ Water-Stained Leaves (B9) (I	
Wetland Hy Primary Indi Surface High Wa	rdrology Indicator icators (minimum o Water (A1) ater Table (A2)		uired; ch	☐ Water-Stai	ned Leaves (B9) (e . A, and 4B)	xcept MLF	RA	Water-Stained Leaves (B9) (I	
Wetland Hy Primary Indi Surface High Wa Saturation	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3)		uired; ch	☐ Water-Stai	ned Leaves (B9) (e A, and 4B) (B11)	xcept MLF	RA	☐ Water-Stained Leaves (B9) (I 4A, and 4B) ☐ Drainage Patterns (B10)	MLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio Water M	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1)		uired; ch	☐ Water-Stai 1, 2, 44 ☐ Salt Crust ☐ Aquatic Inv	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13)	xcept MLF		☐ Water-Stained Leaves (B9) (I 4A, and 4B) ☐ Drainage Patterns (B10) ☐ Dry-Season Water Table (C2	WLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer	vdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		uired; ch	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen	ned Leaves (B9) (eA, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1)			□ Water-Stained Leaves (B9) (I 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2 □ Saturation Visible on Aerial Ir	WLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)		uired; ch	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen	ned Leaves (B9) (eA, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along	Living Roo		Water-Stained Leaves (B9) (I	WLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		uired; ch	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4	Living Roo	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3)	WLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Dep Algal Ma	vidrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		uired; ch	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tilled	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	f one req		Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 on Reduction in Tilled Stressed Plants (D	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatio Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria	f one req	v (B7)	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tilled	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati	wdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca	f one req	v (B7)	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 on Reduction in Tilled Stressed Plants (D	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatia Sparsely	vidrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria by Vegetated Concautry	f one req I Imagery ve Surfac	/ (B7) ce (B8)	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence o Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tilled Stressed Plants (D lain in Remarks)	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	f one req I Imagery ve Surfac	v (B7) ce (B8) No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tiller Stressed Plants (D slain in Remarks)	Living Roo b) d Soils (C6	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR	MLRA 1, 2,) nagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely Field Obser Surface Water Table	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B1) at or Crust (B4) posits (B5) at or Crust (B4) posits (B5) at or Visible on Aeria by Vegetated Concarvations: ter Present?	I Imagery ve Surface Yes Yes	v (B7) ce (B8) No ⊠ No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tillee Stressed Plants (D slain in Remarks)	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2) Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR) Frost-Heave Hummocks (D7)	MLRA 1, 2,) nagery (C9) R A)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F	rdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B1) at or Crust (B4) posits (B5) at or Crust (B4) posits (B5) at or Visible on Aeria by Vegetated Concarvations: ter Present? Present?	f one req I Imagery ve Surfac	v (B7) ce (B8) No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tiller Stressed Plants (D slain in Remarks)	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) Drainage Patterns (B10) Dry-Season Water Table (C2 Saturation Visible on Aerial Ir Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LR	MLRA 1, 2,) nagery (C9) R A)
Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Iron Dep Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pipillary fringe)	I Imagery ve Surface Yes Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tillee Stressed Plants (D slain in Remarks)	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Ir □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LR □ Frost-Heave Hummocks (D7)	MLRA 1, 2,) nagery (C9) R A)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation F (includes ca	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pipillary fringe)	I Imagery ve Surface Yes Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tiller Stressed Plants (D slain in Remarks) s): s): s):	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Ir □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LR □ Frost-Heave Hummocks (D7)	MLRA 1, 2,) nagery (C9) R A)
Wetland Hy Primary Indi Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Iron Dep Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pipillary fringe)	I Imagery ve Surface Yes Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tiller Stressed Plants (D slain in Remarks) s): s): s):	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Ir □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LR □ Frost-Heave Hummocks (D7)	MLRA 1, 2,) nagery (C9) R A)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Water Table Saturation F (includes ca	rdrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? pipillary fringe)	I Imagery ve Surface Yes Yes Yes Yes Yes Yes	v (B7) ce (B8) No ⊠ No ⊠ No ⊠	Water-Stai 1, 2, 4/ Salt Crust Aquatic Inv Hydrogen Oxidized R Presence of Recent Iron Stunted or Other (Exp	ned Leaves (B9) (e A, and 4B) (B11) vertebrates (B13) Sulfide Odor (C1) thizospheres along of Reduced Iron (C4 n Reduction in Tiller Stressed Plants (D slain in Remarks) s): s): s):	Living Roo d Soils (C6 1) (LRR A)	ots (C3)	Water-Stained Leaves (B9) (I 4A, and 4B) □ Drainage Patterns (B10) □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Ir □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LR □ Frost-Heave Hummocks (D7)	MLRA 1, 2,) nagery (C9) R A)

Project/Site: Weakley Project			City/Coun	nty: <u>Camas/C</u>	s/Clark County Sampling Date: 05/30/201				
Applicant/Owner: Gerrick Weakley					State: Washington	Sampling Point: 7			
Investigator(s): Kevin Grosz - The Res	ownship, Range: <u>NW 27, 1</u>	Г02N, R03E, W.M.							
Landform (hillslope, terrace, etc.): hills	slope		Local rel	lief (concave,	convex, none): concave	Slope (%): 8 to 15			
Subregion (LRR): A									
Soil Map Unit Name: Cove silty clay lo									
Are climatic / hydrologic conditions on									
Are Vegetation, Soil, or		-							
Are Vegetation, Soil, or					ed, explain any answers ir				
SUMMARY OF FINDINGS -									
Hydrophytic Vegetation Present?	Yes ⊠ No □								
Hydric Soil Present?	Yes ⊠ No □			the Sampled thin a Wetlar		lo 🗆			
Wetland Hydrology Present?	Yes ⊠ No 🗌		WIL	iiiii a vveuai	iu: res 🖂 N	.O [
Remarks:									
VEGETATION – Use scientif	ic names of plant								
Tree Stratum (Plot size: 5ft)		Absolute <u>% Cover</u>		nt Indicator ? Status	Dominance Test works				
1					Number of Dominant Sp That Are OBL, FACW, of				
2.					Total Number of Domina				
3					Species Across All Stra				
4					Percent of Dominant Sp	pecies			
Sapling/Shrub Stratum (Plot size: 5	5ff)		= Total	Cover		or FAC: <u>75</u> (A/B)			
1					Prevalence Index work	ksheet:			
2.					Total % Cover of:	Multiply by:			
3.					OBL species	x 1 =			
4			-		FACW species	x 2 =			
5						x 3 =			
Herb Stratum (Plot size: 5ft)			= Total	Cover		x 4 =			
4		20	Yes	FACW		x 5 =			
Ranuculus repens		25	Yes	FAC	Column rotals.	(A) (B)			
3. Phalaris arundinacea		35	Yes	FACW	Prevalence Index	= B/A =			
4. Poa pratensis		5	No	FAC	Hydrophytic Vegetation	n Indicators:			
5. <u>Urtica dioica</u>		10	No	FAC	Rapid Test for Hydro	. ,			
6					☐ Dominance Test is				
7					☐ Prevalence Index is	≥3.0° otations¹ (Provide supporting			
8					data in Remarks	s or on a separate sheet)			
9					☐ Wetland Non-Vascu	ılar Plants ¹			
10 11					☐ Problematic Hydrop	hytic Vegetation ¹ (Explain)			
	_	95			¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must			
Woody Vine Stratum (Plot size: 5m	<u>r</u>)				be present, unless distu				
1. Rubus discolor		20	Yes	FACU	Hydrophytic				
2					Vegetation	- M . N . D			
% Bare Ground in Herb Stratum 0		20	= Total	Cover	Present? Yes	s 🛭 No 🗌			
Remarks:					l				

Samp	ling	Point:	7

Depth	cription: (Describ Matrix			Red	lox Featur	es				
(inches)	Color (moist)	%	Cold	or (moist)	%	Type ¹	Loc ²	Textur	<u>e</u> _	<u>Remarks</u>
0-6	10YR 3/2	80	<u>7.5`</u>	YR 4/6	20	<u>C</u>	<u>M</u>	Siltclay	<u>loam</u>	
6-16	10YR 3/1	70	7.5Y	'R 4/6	30	<u>C</u>	<u>M</u>	siltclay	oam	
									,	
										
	-									
	Concentration, D=D Indicators: (App						ed Sand G			cation: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
Histosol		iicabie id				itea.)				n Muck (A10)
	pipedon (A2)			Sandy Redox (Stripped Matrix				_	-	Parent Material (TF2)
	istic (A3)			Loamy Mucky	` '	1) (except	t MLRA 1)		_	Shallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed	•		,		-	er (Explain in Remarks)
☐ Deplete	d Below Dark Surfa	ace (A11)		Depleted Matri	ix (F3)	•				, ,
	ark Surface (A12)			Redox Dark Si	•	•		3lr		ors of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark	,	,				nd hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depres	sions (F8))			unles	s disturbed or problematic.
_	Layer (if present)									
Type:	nches):			_						
Берит (п	icries)			•				Hydri	c Soil	Present? Yes ⊠ No □
IYDROLC										
-	/drology Indicator icators (minimum o		uirod: ch	ock all that an	oly)				Sacar	ndary Indicators (2 or more required)
	Water (A1)	i one req	uneu, cri	U Water-St		ves (R9) (e	vcent MI F	RΔ		ater-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)				4A, and 4		xcept iiiLi		''	4A, and 4B)
				□ Salt Crus		-,			Пр	rainage Patterns (B10)
=	farks (B1)			☐ Aquatic Ir	` ,	es (B13)				ry-Season Water Table (C2)
	nt Deposits (B2)			☐ Hydroger		. ,				aturation Visible on Aerial Imagery (C9)
	posits (B3)					` '	Living Roo	ots (C3)	_	eomorphic Position (D2)
	at or Crust (B4)					ed Iron (C	-	` ,	☐ SI	hallow Aquitard (D3)
-	posits (B5)						d Soils (C6	3)	☐ F/	AC-Neutral Test (D5)
Surface	Soil Cracks (B6)			☐ Stunted o	r Stresse	d Plants (D	1) (LRR A)	.)	☐ R	aised Ant Mounds (D6) (LRR A)
☐ Inundati	ion Visible on Aeria	ıl Imagery	/ (B7)	☐ Other (Ex	plain in R	emarks)			☐ Fi	ost-Heave Hummocks (D7)
☐ Sparsely	y Vegetated Conca	ve Surfa	ce (B8)							
Field Obser	rvations:									
Surface Wa	ter Present?	Yes 🗌	No 🛚	Depth (inche	es):					
Water Table	e Present?	Yes ⊠	No 🗌	Depth (inche	es): <u>4</u>					
Saturation F		Yes ⊠	No 🗌	Depth (inche	es): <u>0</u>		Wetl	land Hyd	lrolog	y Present? Yes 🛭 No 🗌
(includes ca	apillary fringe) ecorded Data (strea	am daline	monitor	ing well aeria	l photos r	revious in	spections)	if availal	ole.	
20001100110	טונט שענט וטווט	gaage	.,		. p0.00, j		-p	availai		
Remarks:										

Project/Site: Weakley Project		_City/Cou	nty: <u>Camas/C</u>	Clark County Sampling Date: 05/30/2014			
Applicant/Owner: Gerrick Weakley				State: Washington Sampling Point: 8			
Investigator(s): Kevin Grosz - The Resource Compan							
Landform (hillslope, terrace, etc.): hillslope		_ Local re	elief (concave	, convex, none): concave	Slope (%): <u>8-15</u>		
Subregion (LRR): A							
Soil Map Unit Name: Lauren Gravelly Loam, 8 to 20 9							
Are climatic / hydrologic conditions on the site typical							
Are Vegetation, Soil, or Hydrology	_			ormal Circumstances" pre			
Are Vegetation, Soil, or Hydrology				ed, explain any answers i			
SUMMARY OF FINDINGS – Attach site							
Hydrophytic Vegetation Present? Yes ⊠ N	Jo \square						
Hydric Soil Present?			the Sampled		. 🗖		
Wetland Hydrology Present? Yes ☐ N		W	ithin a Wetlaı	nd? Yes ☐ N	10 ⊠		
Remarks:		I			-		
VEGETATION – Use scientific names of	plants.						
Tree Stratum (Plot size: 5ft)			int Indicator s? Status	Dominance Test work			
Psuedotsuga menziesii	'		FACU	Number of Dominant S That Are OBL, FACW,			
2							
3.				Total Number of Domin Species Across All Stra			
4.					`,		
		= Total		Percent of Dominant Since That Are OBL, FACW,	pecies or FAC: <u>20</u> (A/B)		
Sapling/Shrub Stratum (Plot size: 5ft)				Prevalence Index wor			
1					Multiply by:		
2					x 1 =		
4					x 2 =		
5.				FAC species	x 3 =		
		= Total		FACU species	x 4 =		
Herb Stratum (Plot size: 5ft)				·	x 5 =		
Dactylis glomerata Anthonorathurs adoptives			<u>FACU</u>	Column Totals:	(A) (B)		
Anthoxanthum odoratum Holcus lanatus		Yes Yes	<u>FACU</u> FAC	Prevalence Index	= B/A =		
4				Hydrophytic Vegetation			
5				☐ Rapid Test for Hydi	ophytic Vegetation		
6.				☐ Dominance Test is	>50%		
7				☐ Prevalence Index is	; ≤3.0 ¹		
8				☐ Morphological Adap	otations ¹ (Provide supporting s or on a separate sheet)		
9				☐ Wetland Non-Vasci			
10					phytic Vegetation ¹ (Explain)		
11				1	il and wetland hydrology must		
Woody Vine Stratum (Plot size: 5m)	<u>65</u>	_ = Total	l Cover	be present, unless distr			
1. Rubus discolor	55	Yes	FACU				
2.				Hydrophytic Vegetation			
	<u>55</u>		Cover		s □ No ⊠		
% Bare Ground in Herb Stratum 0							
Remarks:							

Profile Desc	cription: (Describ	e to the o	depth ne	eeded to docu	ment the	indicator	or confirn	n the ab	sence	of indicators.)
Depth	Matrix				x Feature					
(inches)	Color (moist)	%	Colo	or (moist)	%	Type ¹	Loc ²	<u>Textur</u>	re	<u>Remarks</u>
<u>0-16</u>	10YR 3/2	100						gravsil	tloam_	
		-								
								-		
·	-									
			<u> </u>							
	-									
1									2.	
	oncentration, D=De						ed Sand Gi			ration: PL=Pore Lining, M=Matrix.
_	Indicators: (Appl	icable to				ea.)				rs for Problematic Hydric Soils ³ :
☐ Histosol	` '			Sandy Redox (Stripped Matrix					_	Muck (A10)
│	ipedon (A2)			Stripped Matrix Loamy Mucky I	` '	l) (avcant	MI DA 1)			Parent Material (TF2) Shallow Dark Surface (TF12)
	n Sulfide (A4)			Loamy Gleyed			WILIXA I)			r (Explain in Remarks)
	l Below Dark Surfa	ce (A11)		Depleted Matrix		,		_	_ 00	(Explain in Nemarko)
	rk Surface (A12)	(* 11 1)		Redox Dark Su	. ,			³ 1	ndicato	rs of hydrophytic vegetation and
	ucky Mineral (S1)			Depleted Dark		7)				nd hydrology must be present,
-	leyed Matrix (S4)			Redox Depress	ions (F8)				unles	s disturbed or problematic.
	Layer (if present):									
Type:				-						
Depth (inc	ches):							Hydr	ic Soil	Present? Yes ☐ No ⊠
Remarks:										
HYDROLO										
Wetland Hy	drology Indicator	s:								
Primary India	cators (minimum of	one requ	uired; ch	eck all that app	ly)				Secor	dary Indicators (2 or more required)
☐ Surface \	Water (A1)			☐ Water-Sta	ined Leave	es (B9) (e	xcept MLF	RA	\square W	ater-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ter Table (A2)			1, 2, 4	A, and 4B)				4A, and 4B)
☐ Saturation	n (A3)			☐ Salt Crust	(B11)				☐ Dr	ainage Patterns (B10)
☐ Water Ma	arks (B1)			☐ Aquatic In	vertebrate	s (B13)			☐ Dr	y-Season Water Table (C2)
☐ Sedimen	t Deposits (B2)			☐ Hydrogen	Sulfide Od	dor (C1)			☐ Sa	aturation Visible on Aerial Imagery (C9)
☐ Drift Dep	osits (B3)			☐ Oxidized F	Rhizosphei	res along	Living Roo	ots (C3)	☐ G	eomorphic Position (D2)
☐ Algal Ma	t or Crust (B4)			☐ Presence	of Reduce	d Iron (C4	1)		☐ Sh	nallow Aquitard (D3)
☐ Iron Dep	osits (B5)			☐ Recent Iro	n Reduction	on in Tille	d Soils (C6	6)	☐ F/	AC-Neutral Test (D5)
☐ Surface \$	Soil Cracks (B6)			☐ Stunted or	Stressed	Plants (D	1) (LRR A)	.)	☐ Ra	aised Ant Mounds (D6) (LRR A)
☐ Inundation	on Visible on Aerial	Imagery	(B7)	☐ Other (Exp	olain in Re	marks)			☐ Fr	ost-Heave Hummocks (D7)
	Vegetated Concar	ve Surfac	e (B8)							
Field Obser	vations:									
Surface Water	er Present?	Yes 🗌	No 🛛	Depth (inche	s):					
Water Table	Present?	Yes 🗌	No 🖂	Depth (inche	s):					
Saturation P		Yes 🗌	No 🛛	Depth (inche	s):		Wetl	land Hyd	drology	/ Present? Yes □ No ⊠
(includes car		m dalido	monitor	ing well agric	nhotos pr	evious in	enections)	if availa	hle:	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Describe Re	corded Data (Strea	m gaago,								
	corded Data (Strea	m gaago,								
Describe Re	corded Data (Strea	gaage,								
	Corded Data (Strea									

Project/Site: Weakley Project		nty: <u>Camas/C</u>	Clark County Sampling Date: 05/30/2014			
Applicant/Owner: Gerrick Weakley			State: Washington Sampling Point: 9			
Investigator(s): Kevin Grosz - The Reso	ource Company, Inc.	ownship, Range: <u>NW 27,</u>	Г02N, R03E, W.M.			
Landform (hillslope, terrace, etc.): hillslo	ope		_Local re	elief (concave	, convex, none): concave	Slope (%): 8 to 15
Subregion (LRR): A						
Soil Map Unit Name: Cove silty clay loa						
Are climatic / hydrologic conditions on t						
Are Vegetation, Soil, or H		-			ormal Circumstances" pre	
Are Vegetation, Soil, or H					ed, explain any answers i	
SUMMARY OF FINDINGS - A						
Hydrophytic Vegetation Present?	Yes ⊠ No □					
Hydric Soil Present?	Yes ⊠ No □			the Sampled		In [
Wetland Hydrology Present?	Yes ⊠ No 🗌		WI	thin a Wetlaı	nd? Yes⊠ N	10 🖂
Remarks:						
VEGETATION – Use scientific	names of plant				·	
Tree Stratum (Plot size: 5ft)		Absolute % Cover		nt Indicator s? Status	Dominance Test work	
Fraxinus latifolia				FACW	Number of Dominant S That Are OBL, FACW,	pecies or FAC: <u>5 </u>
2. Salix spp.		30				
3					Total Number of Domin Species Across All Stra	
4					Percent of Dominant Sp	necies
Sapling/Shrub Stratum (Plot size: 5ff	<u>t</u>)	80	= Total	Cover		or FAC: <u>83</u> (A/B)
Fraxinus latifolia saplings		20	Yes	FACW	Prevalence Index wor	ksheet:
2					Total % Cover of:	Multiply by:
3						x 1 =
4						x 2 =
5		<u>20</u>		Cover		x 3 = x 4 =
Herb Stratum (Plot size: 5ft)		20	= 10(a)	Cover		x 5 =
1. Lysichiton americanus		<u>40</u>	Yes	OBL		(A) (B)
2. Juncus effusus		<u>10</u>	No	FAC		
			Yes			= B/A =
4. <u>Urtica dioica</u>					Hydrophytic Vegetation Rapid Test for Hydrophytic Hydrophytic Region Republic Region R	
5					☐ Rapid Test for Hydr	1 , 0
6					☐ Prevalence Index is	
7 8					☐ Morphological Adap	otations ¹ (Provide supporting
9.						s or on a separate sheet)
10					☐ Wetland Non-Vascu	
11						ohytic Vegetation¹ (Explain)
Woody Vine Stratum (Plot size: 5m)		95			be present, unless distu	I and wetland hydrology must urbed or problematic.
1. Rubus discolor		10	Yes	FACU	Hardward #	
2					Hydrophytic Vegetation	
0/ Dana Crayand in Hart Otrature C		10	= Total	Cover		s 🛛 No 🗌
% Bare Ground in Herb Stratum 0 Remarks:						
Terrano.						

Sampling Point: 9

Depth	Matrix			Redo			. 2					
(inches)	Color (moist)	%		r (moist)	%	<u>lype</u>	Loc ²	<u>Texture</u>			Remarks	
<u>0-6</u>	10YR 3/2	<u>80</u>	<u>7.5 Y</u>	/R 4/6	20	<u>C</u>	<u>M</u>	Siltclaylo	oam_			
<u>6-16</u>	10YR 3/1	70	7.5Y	R 4/6	30	<u>C</u>	<u>M</u>	siltclaylo	am_			
	'-							<u> </u>				
							<u> </u>					
1Type: C=C	Concentration, D=D	enletion F	- PM=Ped	uced Matrix C	S=Cover	ed or Coat	ed Sand G	raine	² Locatio	n: DI =D	ore Lining	ı, M=Matrix.
	Indicators: (App						eu Sanu O					/dric Soils³:
☐ Histosol				Sandy Redox (,,,				uck (A10)		,
	pipedon (A2)			Stripped Matrix						ent Mater	rial (TF2)	
	istic (A3)			oamy Mucky I	. ,	1) (excep	t MLRA 1)				k Surface	(TF12)
☐ Hydroge	en Sulfide (A4)		□ L	oamy Gleyed	Matrix (F	2)			Other (E	Explain in	Remarks))
	d Below Dark Surfa	ace (A11)		Depleted Matrix	, ,							
	ark Surface (A12)			Redox Dark Su								tation and
-	Mucky Mineral (S1))	_	Depleted Dark		,					must be p	
-	Gleyed Matrix (S4) Layer (if present)			Redox Depress	sions (F8)			uniess a	isturbea o	r problem	atic.
	Layer (II present)											
	nches):								0 - !! D		v 🔽	N- 🗆
	101100)							Hyaric	Soli Pre	esent?	Yes 🛚	NO 🗆
Remarks:												
HYDROLO	OGY											
	OGY ydrology Indicato	rs:										
Wetland Hy	drology Indicato		ired: che	eck all that app	olv)				Seconda	rv Indicato	ors (2 or m	nore required)
Wetland Hy Primary Indi	ydrology Indicatoricators (minimum c		ired; che		•	ves (B9) (except MLF					nore required)
Wetland Hy Primary Indi ☐ Surface	ydrology Indicator icators (minimum o Water (A1)		ired; che	☐ Water-Sta	ined Lea		except MLF		☐ Wate	r-Stained	Leaves (E	nore required) 39) (MLRA 1, 2,
Wetland Hy Primary Indi	ydrology Indicator icators (minimum o Water (A1) ater Table (A2)		ired; che	☐ Water-Sta	ined Lea A, and 4		except MLF	RA [□ Wate	r-Stained A, and 4B	Leaves (E	39) (MLRA 1, 2,
Wetland Hy Primary Indi ☐ Surface ☐ High Wa ☐ Saturati	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3)		ired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crust	ined Lea A, and 4 (B11)	В)	except MLF	RA [□ Wate 4 □ Drain	r-Stained A, and 4B age Patte	Leaves (E s) erns (B10)	39) (MLRA 1, 2 ,
Wetland Hy Primary Indi Surface High Wa Saturati Water M	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1)		ired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In	ined Lea A, and 4 (B11) vertebrat	B) es (B13)	except MLF	RA [Wate 4, Drain Dry-S	r-Stained A, and 4B age Patte Season Wa	Leaves (E B) erns (B10) ater Table	39) (MLRA 1, 2, e (C2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		ired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen	ined Lea A, and 4 (B11) vertebrat Sulfide (es (B13) Odor (C1)		AF.	☐ Wate 4/ ☐ Drain ☐ Dry-S ☐ Satur	r-Stained A, and 4B age Patte Season Wa ation Visit	Leaves (E B) erns (B10) ater Table ble on Aer	39) (MLRA 1, 2, e (C2) rial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimed Drift De	ydrology Indicator icators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		ired; che	☐ Water-Sta 1, 2, 4 ☐ Salt Crust ☐ Aquatic In ☐ Hydrogen ☑ Oxidized F	ined Lea A, and 4 (B11) vertebrat Sulfide (CRhizosph	B) es (B13) Odor (C1) eres along	Living Roo	RA [[[ots (C3) [Wate 4/ Drain Dry-S Satur Geon	r-Stained A, and 4B age Patte Season Wa ation Visit	Leaves (E inns (B10) ater Table ble on Aer osition (D2	39) (MLRA 1, 2, e (C2) rial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimet Drift Det Algal Ma	rdrology Indicators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		ired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc	es (B13) Odor (C1) eres along red Iron (C	Living Roo 4)	RA [[[ots (C3) [Wate 4/ Drain Dry-S Satur Geon Shalle	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita	Leaves (E s) erns (B10) ater Table ble on Aer osition (D2 rd (D3)	39) (MLRA 1, 2, e (C2) rial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturati Water № Sedimen Drift Dep Algal Ma Iron Dep	variology Indicators (minimum of the control of the		ired; che	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	nined Lea A, and 4 (B11) vertebrat Sulfide (CRhizosph of Reduct on Reduct	es (B13) Odor (C1) eres along red Iron (C	l Living Roo 4) ed Soils (C6	RA [Wate 4 Drain Dry-S Satur Geon Shall	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E s) erns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5)	e (C2) rial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der	rdrology Indicators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	of one requ		Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc on Reduc r Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	Living Roo 4)	RA [Wate 4, Drain Dry-S Satur Geon Shall FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E s) erns (B10) ater Table ble on Aer osition (D2 rd (D3)	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Primary Indi Surface High Wa Saturati Water M Sedimei Drift Dej Algal Ma Iron Dep Surface	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6)	of one requ	(B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Iro	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc on Reduc r Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	l Living Roo 4) ed Soils (C6	RA [Wate 4, Drain Dry-S Satur Geon Shall FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E i) erns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6)	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	of one requ	(B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduc on Reduc r Stresse	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	l Living Roo 4) ed Soils (C6	RA [Wate 4, Drain Dry-S Satur Geon Shall FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E i) erns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6)	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca	of one requ	(B7)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc	nined Lea A, and 4 (B11) vertebrat Sulfide (Rhizosph of Reduc on Reduc r Stresse plain in R	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	l Living Roo 4) ed Soils (C6	RA [Wate 4, Drain Dry-S Satur Geon Shall FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E i) erns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6)	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: tter Present?	of one requ al Imagery ave Surface	(B7) e (B8)	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	nined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	l Living Roo 4) ed Soils (C6	RA [Wate 4, Drain Dry-S Satur Geon Shall FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po bw Aquita Neutral Te	Leaves (E i) erns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6)	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Wa Water Table	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present?	of one required in the second of the second	(B7) e (B8) No 🗆	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	ined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0	es (B13) Odor (C1) eres along ed Iron (C tion in Tille d Plants (D	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4, Drain Dry-S Satur Geon Shalli FAC- Raise	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (E s) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	rydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? publicators (minimum of present? publicators (minimum of present? present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (E s) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	wdrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (EB) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	rydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? publicators (minimum of present? publicators (minimum of present? present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (EB) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	rydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? publicators (minimum of present? publicators (minimum of present? present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (EB) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	rydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? publicators (minimum of present? publicators (minimum of present? present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (EB) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)
Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	rydrology Indicator icators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) Soil Cracks (B6) ion Visible on Aeria y Vegetated Conca rvations: ter Present? e Present? publicators (minimum of present? publicators (minimum of present? present?	al Imagery ave Surface Yes ⊠ Yes ⊠ Yes ⊠	(B7) e (B8) No No No No No No No No No No	Water-Sta 1, 2, 4 Salt Crust Aquatic In Hydrogen Oxidized F Presence Recent Irc Stunted or Other (Exp	wined Lea A, and 4 (B11) vertebrat Sulfide C Rhizosph of Reduct on Reduct r Stresse plain in R s): 3-4 s): 0 ss): 0	es (B13) Ddor (C1) eres along ed Iron (C tion in Tille d Plants (D emarks)	Living Roo 4) ed Soils (C6 01) (LRR A)	RA [Wate 4. Drain Dry-S Satur Geon Shall FAC- Raise Frost	r-Stained A, and 4B age Patte Season Wa ation Visit norphic Po ow Aquita Neutral Te ed Ant Moo -Heave Hu	Leaves (EB) rns (B10) ater Table ble on Aer osition (D2 rd (D3) est (D5) unds (D6) ummocks	39) (MLRA 1, 2, e (C2) rial Imagery (C9) 2) (LRR A) (D7)

Project/Site: Weakley Project			City/County: Camas/Clark County Sampling Date: 05/30/						
Applicant/Owner: Gerrick Weakley					State: Washington	Sampling Point: 1	0		
Investigator(s): Kevin Grosz - The Resour									
Landform (hillslope, terrace, etc.): hillslope	Э		_Local r	elief (concave	, convex, none): concave	Slope	e (%): <u>8-15</u>		
Subregion (LRR): A									
Soil Map Unit Name: Lauren Gravelly Loa									
Are climatic / hydrologic conditions on the									
Are Vegetation, Soil, or Hyd		-					эΠ		
Are Vegetation, Soil, or Hyd					ed, explain any answers in		_		
SUMMARY OF FINDINGS - Att							tures, etc.		
Hydrophytic Vegetation Present?	Yes ⊠ No [П							
Hydric Soil Present?	Yes ☐ No [s the Sampled		Io 57			
Wetland Hydrology Present?	Yes 🗌 No [\boxtimes	\ \	vithin a Wetlar	nd? Yes □ N	10 🖾			
Remarks:									
VEGETATION – Use scientific n	ames of pl								
Tree Stratum (Plot size: 5ft)				ant Indicator es? Status	Dominance Test works				
				FACU	Number of Dominant Sp That Are OBL, FACW, of		(A)		
2.					Total Number of Domina				
3					Species Across All Stra		(B)		
4					Percent of Dominant Sp	pecies			
Sapling/Shrub Stratum (Plot size: 5ft)			= Tota	al Cover	That Are OBL, FACW, of		(A/B)		
1					Prevalence Index worl	ksheet:			
2.					Total % Cover of:	Multiply !	by:		
3.					OBL species				
4					FACW species	x 2 =			
5					FAC species				
Horb Stratum (Diat aiza: Eff.)			= Tota	al Cover	FACU species				
Herb Stratum (Plot size: 5ft) 1. Dactylis glomerata		20	Yes	FACU	UPL species				
Anthoxanthum odoratum			Yes	FACU	Column Totals:	(A)	(B)		
3. Holcus lanatus					Prevalence Index	= B/A =			
4.					Hydrophytic Vegetation	n Indicators:			
5					☐ Rapid Test for Hydr	. , .			
6					☐ Dominance Test is :				
7					☐ Prevalence Index is				
8					☐ Morphological Adap data in Remarks	otations (Provide su s or on a separate sl	ipporting heet)		
9					☐ Wetland Non-Vascu		,		
10					☐ Problematic Hydrop	hytic Vegetation ¹ (E	Explain)		
11.		65		al Cover	¹ Indicators of hydric soil				
Woody Vine Stratum (Plot size: 5m)		<u>00</u>	_ 100	ai 00vci	be present, unless distu	rbed or problematio	<u>. </u>		
1. Rubus discolor		<u>55</u>	Yes	FACU	Hydrophytic				
2					Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 0		<u>55</u>	= Tota	al Cover	Present? Yes	s □ No ⊠			
Remarks:					1				

Profile Desc	cription: (Describ	e to the	depth n			or or confirm	n the ab	sence	of indicators.)
Depth	Matrix Calar (maint)	%			x Features	L = - ²	Tasation		Damarika
(inches)	Color (moist)		Coid	or (moist)	% Type ¹	LOC	Textu		Remarks
<u>0-16</u>	10YR 3/2	100					gravsil	<u>tloam</u>	
			_						
-									
¹Type: C=C	oncentration, D=De	epletion	RM=Rec	luced Matrix. CS	S=Covered or Coa	ated Sand G	rains	² Loc	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl								ers for Problematic Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox (S	S5)] 2 cm	Muck (A10)
☐ Histic Ep	pipedon (A2)			Stripped Matrix				Red	Parent Material (TF2)
☐ Black His	stic (A3)			Loamy Mucky M	fineral (F1) (exce	pt MLRA 1)		☐ Very	Shallow Dark Surface (TF12)
	n Sulfide (A4)			Loamy Gleyed I				Othe	er (Explain in Remarks)
	Below Dark Surfa	ce (A11)		Depleted Matrix	, ,		3.		
	irk Surface (A12)			Redox Dark Sur	. ,		٦		ors of hydrophytic vegetation and
-	lucky Mineral (S1) leyed Matrix (S4)			Depleted Dark S Redox Depressi	, ,				nd hydrology must be present, s disturbed or problematic.
-	Layer (if present):			Nedox Deplessi	ions (i o)			unics	s disturbed or problematic.
Type:	Layer (ii present).								
, ,	ches):						Hydr	ric Sail	Present? Yes □ No ⊠
Remarks:	,			-			Tiyui	10 3011	riesent: ies 🗆 No 🖂
Remarks.									
HYDROLO	GY								
Wetland Hy	drology Indicators	s:							
Primary India	cators (minimum of	one requ	uired; ch	eck all that appl	y)			Secor	ndary Indicators (2 or more required)
☐ Surface \	Water (A1)			☐ Water-Stai	ned Leaves (B9)	(except MLF	RA	\square W	ater-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ter Table (A2)			1, 2, 4	A, and 4B)				4A, and 4B)
☐ Saturation	on (A3)			☐ Salt Crust	(B11)			☐ Dr	rainage Patterns (B10)
☐ Water Mater Mat	arks (B1)			☐ Aquatic Inv	vertebrates (B13)			☐ Dr	ry-Season Water Table (C2)
☐ Sedimen	t Deposits (B2)			☐ Hydrogen	Sulfide Odor (C1)			☐ Sa	aturation Visible on Aerial Imagery (C9)
☐ Drift Dep	osits (B3)			☐ Oxidized R	thizospheres alon	g Living Roc	ots (C3)	☐ Ge	eomorphic Position (D2)
☐ Algal Ma	t or Crust (B4)			☐ Presence of	of Reduced Iron (C4)		☐ Sh	nallow Aquitard (D3)
☐ Iron Dep	osits (B5)			_	n Reduction in Til	`	,	☐ FA	AC-Neutral Test (D5)
	Soil Cracks (B6)			☐ Stunted or	Stressed Plants	(D1) (LRR A)		aised Ant Mounds (D6) (LRR A)
	on Visible on Aerial			☐ Other (Exp	lain in Remarks)			☐ Fr	rost-Heave Hummocks (D7)
	Vegetated Conca	ve Surfac	e (B8)						
Field Obser									
Surface Wat	er Present?	Yes 🗌	No 🖂	Depth (inches	s):				
Water Table	Present?	Yes 🗌	No 🛚	Depth (inches	s):				
Saturation P		Yes 🗌	No 🛚	Depth (inches	s):	Wet	land Hy	drology	y Present? Yes □ No ⊠
(includes car Describe Re	oillary fringe) corded Data (strea	m gauge	monito	ring well aerial	photos previous i	nspections)	if availa	able:	
	2000 (00000		,	.ge, acriai	,, p. 5716461	300110),			
Remarks:									

Project/Site: Weakley Project	City/County: Camas/Clark County Sampling Date: 06/20/201							
Applicant/Owner: Gerrick Weakley				State: Washington	Sampling Point: 11			
Investigator(s): Kevin Grosz - The Resource Company, Inc			Section, To	ownship, Range: <u>NW 27, T</u>	02N, R03E, W.M.			
Landform (hillslope, terrace, etc.): hillslope		_Local rel	ief (concave	, convex, none): concave	Slope (%): 8 to 15			
Subregion (LRR): A								
Soil Map Unit Name: Lauren gravelly loam, 8 to 20 percent								
Are climatic / hydrologic conditions on the site typical for th								
Are Vegetation, Soil, or Hydrology sig				ormal Circumstances" pres				
Are Vegetation, Soil, or Hydrology nat				ed, explain any answers ir				
SUMMARY OF FINDINGS – Attach site map				-				
Hydrophytic Vegetation Present? Yes ⊠ No □								
Hydric Soil Present? Yes ⊠ No □			the Sampled					
Wetland Hydrology Present? Yes ⊠ No □		Wit	hin a Wetlaı	nd? Yes ⊠ N	0 🗆			
Remarks:		<u> </u>						
VEGETATION – Use scientific names of plan	ıts.							
Tree Stratum (Plot size: 5ft)			nt Indicator ? Status	Dominance Test works				
1. Fraxinus latifolia				Number of Dominant Sp That Are OBL, FACW, or				
2.								
3.				Total Number of Domina Species Across All Strat				
4.				·				
		= Total 0		Percent of Dominant Sp That Are OBL, FACW, or	or FAC: <u>86</u> (A/B)			
Sapling/Shrub Stratum (Plot size: 5ft)			=10					
1. Acer circinatum			FAC	Prevalence Index work				
2. Cornus alba					Multiply by: x 1 =			
3					x 2 =			
5					x 3 =			
		= Total (FACU species	x 4 =			
Herb Stratum (Plot size: 5ft)				UPL species	x 5 =			
1. Lysichiton americanus	00		OBL	Column Totals:	(A) (B)			
2. Ranuculus repens		Yes	FAC	Prevalence Index	= B/A =			
Phalaris arundinacea 4				Hydrophytic Vegetatio				
5				☐ Rapid Test for Hydro				
6.				□ Dominance Test is >	>50%			
7.				☐ Prevalence Index is	≤3.0 ¹			
8				☐ Morphological Adap	tations ¹ (Provide supporting			
9				□ Wetland Non-Vascu	or on a separate sheet)			
10			<u> </u>		hytic Vegetation ¹ (Explain)			
11		_			and wetland hydrology must			
Woody Vine Stratum (Plot size: 5m)	<u>95</u>	= Total (Cover	be present, unless distu				
1. Rubus discolor	10	Yes	FACU					
2			17.00	Hydrophytic				
				— Vegetation Present? Yes ⊠ No □				
% Bare Ground in Herb Stratum 0								
Remarks:								

	cription: (Describ		depth ne				r or confirm	n the abs	ence of	f indicators.)
Depth (inches)	Matrix Color (moist)	%	Colo	or (moist)	lox Featur %		Loc ²	Texture)	Remarks
0-16	10YR 3/1	80		YR 4/6	20	C	M	Siltclaylo		
0 10	1011(0/1		7.0	1111-110			<u></u>	Ontolayio		
	-									
			_							
								-		
	oncentration, D=D						ed Sand Gr			tion: PL=Pore Lining, M=Matrix.
_	Indicators: (Appl	icable to				ited.)				for Problematic Hydric Soils ³ :
Histosol	` '			Sandy Redox						Muck (A10)
	oipedon (A2) stic (A3)			Stripped Matrix	• •	1) (ovcon	+ MI DA 1\			arent Material (TF2) hallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Mucky Loamy Gleyed			LIVILKA I)		-	(Explain in Remarks)
	d Below Dark Surfa	re (A11)		Depleted Matri	•	۷)			Other	(Explain in Remarks)
•	ark Surface (A12)	icc (A11)		Redox Dark Si	, ,)		³ Inc	dicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark	•	•				hydrology must be present,
	Gleyed Matrix (S4)			Redox Depres	sions (F8)	,				disturbed or problematic.
Restrictive	Layer (if present)									
Type:				_						
Depth (in	ches):			-				Hydric	Soil P	resent? Yes ⊠ No 🏻
Remarks:										
HYDROLC										
,	drology Indicator									
	cators (minimum o	f one requ	uired; ch						Second	ary Indicators (2 or more required)
□ Surface	` '			☐ Water-Sta			except MLF	RA [er-Stained Leaves (B9) (MLRA 1, 2,
_	ater Table (A2)			1, 2, 4	4A, and 4I	В)				4A, and 4B)
	on (A3)			☐ Salt Crus	t (B11)			[☐ Drai	nage Patterns (B10)
	larks (B1)			☐ Aquatic Ir					-	Season Water Table (C2)
☐ Sedime	nt Deposits (B2)			☐ Hydroger					☐ Satu	uration Visible on Aerial Imagery (C9)
☐ Drift Dep	oosits (B3)				Rhizosphe	eres along	Living Roo	ots (C3)	☐ Geo	emorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence	of Reduc	ed Iron (C	4)	[☐ Sha	llow Aquitard (D3)
☐ Iron Dep	osits (B5)			☐ Recent In	on Reduct	ion in Tille	ed Soils (C6	6) [☐ FAC	C-Neutral Test (D5)
☐ Surface	Soil Cracks (B6)			☐ Stunted of	or Stressed	d Plants (D	01) (LRR A)) [☐ Rais	sed Ant Mounds (D6) (LRR A)
☐ Inundati	on Visible on Aeria	l Imagery	(B7)	☐ Other (Ex	plain in R	emarks)		[☐ Fros	st-Heave Hummocks (D7)
☐ Sparsely	Vegetated Conca	ve Surfac	e (B8)							
Field Obser	rvations:									
Surface Wa	ter Present?	Yes 🛚	No 🗌	Depth (inche	es): <u>1-2</u>					
Water Table	Present?	Yes ⊠	No 🗌	Depth (inche	es): <u>0</u>					
Saturation F	resent?	Yes ⊠	No 🗌	Depth (inche	es): <u>0</u>		Wetl	and Hydr	rology l	Present? Yes ⊠ No 🗌
	pillary fringe)							16 a 21 - 2 - 2	 la:	
Describe Re	ecorded Data (strea	ım gauge	, monitor	ring well, aeria	ı pnotos, p	revious in	spections),	ır avaılab	ie:	
Remarks:										

Project/Site: Weakley Project		City/County: Camas/Clark County Sampling Date: 06/20						
Applicant/Owner: Gerrick Weakley					State: Washington	Sampling Point: 12		
Investigator(s): Kevin Grosz - The Resource Con	npany, Inc.			Section, To	ownship, Range: <u>NW 27, T</u>	02N, R03E, W.M.		
Landform (hillslope, terrace, etc.): hillslope			Local relie	ef (concave,	convex, none): concave	Slope (%): <u>8-15</u>		
Subregion (LRR): A								
Soil Map Unit Name: Lauren Gravelly Loam, 8 to								
Are climatic / hydrologic conditions on the site ty								
Are Vegetation, Soil, or Hydrology		-						
Are Vegetation, Soil, or Hydrology					ed, explain any answers in			
SUMMARY OF FINDINGS - Attach s								
Hydrophytic Vegetation Present? Yes [□ No ⊠							
	□ No ⊠			e Sampled		• 🔽		
Wetland Hydrology Present? Yes [☐ No 🏻		With	in a Wetlar	nd? Yes □ N	2 🛛		
Remarks:								
VEGETATION – Use scientific names	of plant	ts.						
	•	Absolute			Dominance Test works	sheet:		
Tree Stratum (Plot size: 5ft)		% Cover			Number of Dominant Sp			
Psuedotsuga menziesii					That Are OBL, FACW, o	or FAC: 1 (A)		
2					Total Number of Domina Species Across All Strat			
4.								
Sapling/Shrub Stratum (Plot size: 5ft)			= Total C		Percent of Dominant Sp That Are OBL, FACW, o	ecies or FAC: <u>25</u> (A/B)		
1					Prevalence Index work	sheet:		
2.					Total % Cover of:	Multiply by:		
3					OBL species	x 1 =		
4					*	x 2 =		
5						x 3 =		
Herb Stratum (Plot size: 5ft)			= Total C	over		x 4 =		
1. Dactylis glomerata		20	Yes	FACU		x 5 =(D)		
Phalaris arundinacea				FACW	Column rotals.	(A) (B)		
3.					Prevalence Index	= B/A =		
4					Hydrophytic Vegetatio	n Indicators:		
5					Rapid Test for Hydro			
6					☐ Dominance Test is >			
7					☐ Prevalence Index is			
8					data in Remarks	tations ¹ (Provide supporting or on a separate sheet)		
9					☐ Wetland Non-Vascu			
10					☐ Problematic Hydropl	hytic Vegetation ¹ (Explain)		
11		40	= Total C			and wetland hydrology must		
Woody Vine Stratum (Plot size: 5m)		40	Total O	.0101	be present, unless distu	bed or problematic.		
1. Rubus discolor		60	Yes	FACU	Hydrophytic			
2					Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 0		60	= Total C	over	Present? Yes	s □ No ⊠		
Remarks:					l			

Depth	cription: (Describ Matrix				x Features				,
(inches)	Color (moist)	%	Cold	or (moist)	% Type ¹	Loc ²	Textur	<u>e</u>	Remarks Remarks
0-16	10YR 3/2	100				· <u> </u>	gravsilt	loam	
							-		
	-						-		
	-								
						· ——			
	ioncentration, D=De Indicators: (Appli					ed Sand Gr			ion: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
-		icable ic							
☐ Histosol	oipedon (A2)			Sandy Redox (S Stripped Matrix			_	_	Muck (A10) arent Material (TF2)
	istic (A3)				/lineral (F1) (exce p	t MI RA 1)	F		hallow Dark Surface (TF12)
	en Sulfide (A4)			Loamy Gleyed I	. ,	t iniLity 1)		-	(Explain in Remarks)
_ , ,	d Below Dark Surfa	ce (A11)		Depleted Matrix			_	, oo. ,	(2) praint in 1 (3) in all (3)
•	ark Surface (A12)	, ,		Redox Dark Su	• •		3lr	ndicators	of hydrophytic vegetation and
☐ Sandy N	Mucky Mineral (S1)			Depleted Dark	Surface (F7)			wetland	I hydrology must be present,
-	Gleyed Matrix (S4)			Redox Depress	ions (F8)			unless	disturbed or problematic.
Restrictive	Layer (if present):								
Type:									
Depth (in	iches):			-			Hydri	ic Soil P	resent? Yes 🗌 No 🖂
IYDROLO)GY								
Wetland Hy	drology Indicators	S :							
Primary Indi	cators (minimum of	one req	uired; ch	eck all that appl	y)			Second	ary Indicators (2 or more required)
☐ Surface	Water (A1)			☐ Water-Stail	ined Leaves (B9) (except MLR	RA	☐ Wat	er-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ater Table (A2)			1, 2, 4	A, and 4B)			4	4A, and 4B)
☐ Saturation	on (A3)			☐ Salt Crust	(B11)			□ Drai	nage Patterns (B10)
☐ Water M	larks (B1)			☐ Aquatic Inv	vertebrates (B13)			☐ Dry-	Season Water Table (C2)
☐ Sedimer	nt Deposits (B2)			☐ Hydrogen	Sulfide Odor (C1)			☐ Satu	ration Visible on Aerial Imagery (C9)
☐ Drift Dep	posits (B3)				Rhizospheres along	_	ots (C3)	☐ Geo	morphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☐ Presence	of Reduced Iron (C	4)		☐ Sha	llow Aquitard (D3)
☐ Iron Dep	oosits (B5)			☐ Recent Iro	n Reduction in Tille	ed Soils (C6	6)	☐ FAC	-Neutral Test (D5)
	Soil Cracks (B6)			☐ Stunted or	Stressed Plants (D	01) (LRR A))		sed Ant Mounds (D6) (LRR A)
	on Visible on Aerial			☐ Other (Exp	olain in Remarks)			☐ Fros	t-Heave Hummocks (D7)
	y Vegetated Concav	e Surfac	ce (B8)						
Field Obser			_						
Surface Wat	ter Present?	Yes 🗌	No 🛛	Depth (inches	s):				
Water Table	Present?	Yes 🗌	No 🛚	Depth (inches	s):				
Saturation F		Yes 🗌	No 🖂	Depth (inches	s):	Wetl	and Hyd	irology F	Present? Yes □ No 🏻
	pillary fringe) ecorded Data (strea	m gauge	. monito	ring well, aerial	photos, previous in	spections)	if availal	ble:	
200000	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	990	,		p	,			
Remarks:									
Remarks:									
Remarks:									

Project/Site: Weakley Project	City/County: Camas/Clark County Sampling Date: 06/20/20						
Applicant/Owner: Gerrick Weakley				State: Washington	Sampling Point: 13		
Investigator(s): Kevin Grosz - The Resource Company, Inc							
Landform (hillslope, terrace, etc.): hillslope		_Local rel	ief (concave	, convex, none): concave	Slope (%): 8 to 15		
Subregion (LRR): A							
Soil Map Unit Name: Lauren gravelly loam, 8 to 20 percent							
Are climatic / hydrologic conditions on the site typical for th							
Are Vegetation, Soil, or Hydrology sig				ormal Circumstances" pres			
Are Vegetation, Soil, or Hydrology nat				ed, explain any answers ir			
SUMMARY OF FINDINGS – Attach site map							
Hydrophytic Vegetation Present? Yes ⊠ No □							
Hydric Soil Present? Yes ⊠ No □			the Sampled				
Wetland Hydrology Present? Yes ⊠ No □		WIT	hin a Wetlaı	nd? Yes⊠ N	0 🗆		
Remarks:							
VEGETATION – Use scientific names of plan	ıts.						
Tree Stratum (Plot size: 5ft)			nt Indicator ? Status	Dominance Test works			
1. Fraxinus latifolia				Number of Dominant Sp That Are OBL FACW of	pecies or FAC: <u>6</u> (A)		
2.							
3.				Total Number of Domina Species Across All Strat			
4.				,			
		= Total		Percent of Dominant Sp That Are OBL, FACW, of	or FAC: <u>86</u> (A/B)		
Sapling/Shrub Stratum (Plot size: 5ft)			=10				
1. Acer circinatum			FAC	Prevalence Index work			
2. Cornus alba					Multiply by: x 1 =		
3					x 2 =		
5				·	x 3 =		
		= Total		FACU species	x 4 =		
Herb Stratum (Plot size: 5ft)				UPL species	x 5 =		
1. Lysichiton americanus	00		OBL	Column Totals:	(A) (B)		
2. Ranuculus repens		Yes	FAC	Prevalence Index	= B/A =		
Phalaris arundinacea 4				Hydrophytic Vegetatio			
5				☐ Rapid Test for Hydro			
6.				□ Dominance Test is >	>50%		
7.				☐ Prevalence Index is	≤3.0 ¹		
8				☐ Morphological Adap	tations ¹ (Provide supporting		
9				data in Remarks Wetland Non-Vascu	or on a separate sheet)		
10			<u> </u>		hytic Vegetation ¹ (Explain)		
11		<u> </u>		1	and wetland hydrology must		
Woody Vine Stratum (Plot size: 5m)	<u>95</u>	= Total	Cover	be present, unless distu			
1. Rubus discolor	10	Yes	FACU				
2			17.00	Hydrophytic			
	10		Cover	— Vegetation Present? Yes ⊠ No □			
% Bare Ground in Herb Stratum 0							
Remarks:							

Depth (inches)	Matrix Color (moist)	%	Colo	r (moist)	ox Feature %		Loc ²	Texture		Rema	arks
0-16	10YR 3/1	80		′R 4/6	20	C					
0-10	1011(3/1	00	<u> 7.5 1</u>	11 4/0		<u> </u>	IVI	Ontolayio	<u> </u>		
								-			
	-										
	-										
					-						
¹ Type: C=C	oncentration, D=D	epletion, F	RM=Red	uced Matrix, C	S=Covere	d or Coat	ed Sand G	rains.	² Location	: PL=Pore Li	ning, M=Matrix.
	Indicators: (App										c Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox ((S5)				2 cm Muc	k (A10)	
	oipedon (A2)			Stripped Matrix					Red Pare	nt Material (T	F2)
☐ Black Hi	stic (A3)			oamy Mucky	Mineral (F) (excep	t MLRA 1)		Very Shal	low Dark Surf	face (TF12)
	en Sulfide (A4)			oamy Gleyed	Matrix (F2)			Other (Ex	plain in Rema	arks)
	d Below Dark Surfa	ace (A11)		Depleted Matri	. ,						
	ark Surface (A12)			Redox Dark Su							egetation and
-	Mucky Mineral (S1)			Depleted Dark	•	7)			-	drology must	
-	Bleyed Matrix (S4)			Redox Depres	sions (F8)			<u> </u>	uniess dis	turbed or prob	ematic.
	Layer (if present)										
	ches):										
Depth (in	iches)							Hydric	Soil Pres	ent? Yes	⊠ No ∐
HYDROLO)GY										
	OGY rdrology Indicator	's:									
Wetland Hy			ired; che	eck all that app	oly)				Secondary	Indicators (2	or more required)
Wetland Hy	drology Indicator			eck all that app	•	es (B9) (e	except MLF				or more required) es (B9) (MLRA 1, 2,
Wetland Hy Primary Indi ⊠ Surface	drology Indicator			☐ Water-Sta	•		except MLF		☐ Water-		
Wetland Hy Primary Indi ⊠ Surface	rdrology Indicator cators (minimum o Water (A1) ater Table (A2)			☐ Water-Sta	ained Leave		xcept MLF	RA [□ Water- 4A ,	Stained Leave	es (B9) (MLRA 1, 2 ,
Wetland Hy Primary Indi	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)			☐ Water-Sta	ained Leave IA, and 4B t (B11))	except MLF	RA [□ Water- 4A , □ Draina	Stained Leave	es (B9) (MLRA 1, 2,
Wetland Hy Primary Indi ☐ Surface ☐ High Wa ☐ Saturatio ☐ Water M	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)			☐ Water-Sta 1, 2, 4 ☐ Salt Crus	ained Leave IA, and 4B t (B11) overtebrate) s (B13)	except MLF	RA [Water 4A, Draina	Stained Leave and 4B) ge Patterns (E ason Water T	es (B9) (MLRA 1, 2,
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer	rdrology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1)			☐ Water-Sta 1, 2, 4 ☐ Salt Crus ☐ Aquatic Ir ☐ Hydrogen	ined Leave IA, and 4B t (B11) overtebrate Sulfide Oc) s (B13) dor (C1)	except MLF	AF. [Water 4A, Draina Dry-Se Saturat	Stained Leave and 4B) ge Patterns (E ason Water T	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer □ Drift Dep	cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)			□ Water-Sta 1, 2, 4 □ Salt Crus □ Aquatic Ir □ Hydrogen □ Oxidized	ined Leave IA, and 4B t (B11) overtebrate Sulfide Oc) s (B13) dor (C1) res along	Living Roc	RA [[[ots (C3) [Water 4A, Drainag Dry-Se Saturat Geomo	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on	es (B9) (MLRA 1, 2, B10) Table (C2) Aerial Imagery (C9) In (D2)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer □ Drift Dep Algal Ma	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)			Water-Sta 1, 2, 4 ☐ Salt Crus ☐ Aquatic Ir ☐ Hydrogen ☐ Oxidized ☐ Presence	Ained Leave A, and 4B t (B11) avertebrate Sulfide Oc Rhizosphe of Reduce	s (B13) dor (C1) res along d Iron (C	Living Roc	RA [[[ots (C3) [Water 4A, Draina Dry-Se Satural Geomo	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position	es (B9) (MLRA 1, 2, B10) able (C2) A Aerial Imagery (C9) a (D2) B)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer □ Drift Dep Algal Ma □ Iron Dep	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)			Water-Sta 1, 2, 4 □ Salt Crus □ Aquatic Ir □ Hydrogen □ Oxidized □ Presence □ Recent Ire	Ained Leave IA, and 4B I (B11) Invertebrate Sulfide Oc Rhizosphe of Reduce on Reduction) s (B13) dor (C1) res along d Iron (Co	Living Roo 4)	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Satural Geomo Shallov FAC-N	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) n (D2) B)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	rdrology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	f one requ		Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent In Stunted o	Ained Leave IA, and 4B I (B11) Invertebrate Sulfide Oc Rhizosphe of Reduce on Reduction	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) o (D2) B) (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer □ Drift Dep □ Algal Ma □ Iron Dep □ Surface □ Inundation	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6)	f one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent In Stunted o	Ained Leave IA, and 4B I (B11) Invertebrate Sulfide Oc Rhizosphe of Reduce on Reduction r Stressed	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) o (D2) B) (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface	cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) on Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) Soil Cracks (B6) on Visible on Aeria	f one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent In Stunted o	Ained Leave IA, and 4B I (B11) Invertebrate Sulfide Oc Rhizosphe of Reduce on Reduction r Stressed	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) o (D2) B) (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturation Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundation Sparsely	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) ater Balance (B2) posits (B1) at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria (Vegetated Concarvations:	f one requ	(B7)	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	ined Leave IA, and 4B I (B11) evertebrate Sulfide Oc Rhizosphe of Reduce on Reduction r Stressed plain in Re	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) o (D2) B) (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely	drology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) darks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concarvations: ater Present?	one requal Imagery ave Surface Yes ⊠	(B7) e (B8) No 🗆	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent In Stunted o Other (Ex	A planned Leave LA, and 4B LA, and 4B LA, and 4B LA, and 4B LA, and 4B Sulfide Oc Rhizosphe of Reduce on Reduction r Stressed plain in Re	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6	RA [[[[] ots (C3) [[] []	Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds	es (B9) (MLRA 1, 2, B10) able (C2) Aerial Imagery (C9) o (D2) B) (D6) (LRR A)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table	redrology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) aters (B1) at Deposits (B2) at or Crust (B4) at or Crust (B4) at or Crust (B6) at or Visible on Aeria by Vegetated Concarvations: ater Present?	one required in the second of	(B7) e (B8) No No No	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent Ir Stunted o Other (Ex	Annumber of Reduces on Reduction Reduction Results on Results of R	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Water Table Saturation F	drology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) larks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) on Visible on Aeria at Vegetated Concar creations: ter Present? Present?	one required in the second of	(B7) e (B8) No 🗆	Water-Sta 1, 2, 4 Salt Crus Aquatic Ir Hydrogen Oxidized Presence Recent In Stunted o Other (Ex	Annumber of Reduces on Reduction Reduction Results on Results of R	s (B13) dor (C1) res along d Iron (Co on in Tille Plants (D	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T ion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	redrology Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) aters (B1) at Deposits (B2) at or Crust (B4) at or Crust (B4) at or Crust (B6) at or Visible on Aeria by Vegetated Concarvations: ater Present?	Il Imagery alve Surface Yes Yes Yes Yes Yes Yes Xes	(B7) e (B8) No No No No No No	Water-Sta 1, 2, 4	A part of the series of the se	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (C marks)	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rationary Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) ater (B1) ater (B2) on (A3) ater (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar or Vegetated Conc	Il Imagery alve Surface Yes Yes Yes Yes Yes Yes Xes	(B7) e (B8) No No No No No No	Water-Sta 1, 2, 4	A part of the series of the se	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (C marks)	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatio Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rationary Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) ater (B1) ater (B2) on (A3) ater (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar or Vegetated Conc	Il Imagery alve Surface Yes Yes Yes Yes Yes Yes Xes	(B7) e (B8) No No No No No No	Water-Sta 1, 2, 4	A part of the series of the se	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (C marks)	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rationary Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) ater (B1) ater (B2) on (A3) ater (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar or Vegetated Conc	Il Imagery alve Surface Yes Yes Yes Yes Yes Yes Xes	(B7) e (B8) No No No No No No	Water-Sta 1, 2, 4	A part of the series of the se	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (C marks)	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)
Wetland Hy Primary Indi Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Surface Inundatic Sparsely Field Obser Surface Wat Water Table Saturation P (includes ca	rationary Indicator cators (minimum of Water (A1)) ater Table (A2) on (A3) ater (B1) ater (B2) on (A3) ater (B2) osits (B3) at or Crust (B4) osits (B5) Soil Cracks (B6) on Visible on Aeria of Vegetated Concar or Vegetated Conc	Il Imagery alve Surface Yes Yes Yes Yes Yes Yes Xes	(B7) e (B8) No No No No No No	Water-Sta 1, 2, 4	A part of the series of the se	s (B13) dor (C1) res along d Iron (C- on in Tille Plants (C marks)	Living Roo 4) d Soils (C6 1) (LRR A	RA [Water 4A, Drainag Dry-Se Saturat Geomo Shallov FAC-N Raised Frost-F	Stained Leave and 4B) ge Patterns (E ason Water T tion Visible on orphic Position v Aquitard (D3 eutral Test (D Ant Mounds of leave Hummo	es (B9) (MLRA 1, 2, B10) Sable (C2) A Aerial Imagery (C9) D (D2) B) 5) (D6) (LRR A) Docks (D7)

Project/Site: Weakley Project		City/County: Camas/Clark County Sampling Date: 06/20/						
Applicant/Owner: Gerrick Weakley				State: Washington	Sampling Point: 14			
Investigator(s): Kevin Grosz - The Resource Company, Ir	nc.		_ Section, To	ownship, Range: <u>NW 27, T</u>	02N, R03E, W.M.			
Landform (hillslope, terrace, etc.): hillslope		_Local re	lief (concave,	, convex, none): concave	Slope (%): <u>8-15</u>			
Subregion (LRR): A					Datum:			
Soil Map Unit Name: Lauren Gravelly Loam, 8 to 20 % sl								
Are climatic / hydrologic conditions on the site typical for								
Are Vegetation, Soil, or Hydrology s	-							
Are Vegetation, Soil, or Hydrology na				ed, explain any answers in				
SUMMARY OF FINDINGS - Attach site ma								
Hydrophytic Vegetation Present? Yes ☐ No ②	◁							
Hydric Soil Present? Yes ☐ No 🖸	_		the Sampled		o M			
Wetland Hydrology Present? Yes ☐ No 🛭		WI	thin a Wetlar	nd? Yes □ N	0 🔯			
Remarks:								
VEGETATION – Use scientific names of pla	ants.							
	Absolute		nt Indicator	Dominance Test works	sheet:			
Tree Stratum (Plot size: 5ft)	· · · · · · · · · · · · · · · · · · ·		S? Status	Number of Dominant Sp				
Psuedotsuga menziesii			<u>FACU</u>	That Are OBL, FACW, o	or FAC: 1 (A)			
2				Total Number of Domina Species Across All Strat				
4				,				
Sapling/Shrub Stratum (Plot size: 5ft)				Percent of Dominant Sp That Are OBL, FACW, o	ecies or FAC: <u>25</u> (A/B)			
1				Prevalence Index work	sheet:			
2.				Total % Cover of:	Multiply by:			
3				OBL species	x 1 =			
4	_			1	x 2 =			
5					x 3 =			
Herb Stratum (Plot size: 5ft)		= Total	Cover		x 4 =			
1. Dactylis glomerata	20	Yes	FACU		x 5 =			
Phalaris arundinacea				Column Totals.	(A) (B)			
3.				Prevalence Index	= B/A =			
4				Hydrophytic Vegetatio	n Indicators:			
5				☐ Rapid Test for Hydro				
6				☐ Dominance Test is >				
7				☐ Prevalence Index is				
8				data in Remarks	tations ¹ (Provide supporting or on a separate sheet)			
9				☐ Wetland Non-Vascu				
10.				☐ Problematic Hydropl	hytic Vegetation ¹ (Explain)			
11	40				and wetland hydrology must			
Woody Vine Stratum (Plot size: 5m)	40	TO(a)	Covei	be present, unless distu	rbed or problematic.			
1. Rubus discolor	60	Yes	<u>FACU</u>	Hydrophytic				
2				Vegetation				
% Bare Ground in Herb Stratum <u>0</u>	60	= Total	Cover	Present? Yes □ No ⊠				
Remarks:								

Depth	cription: (Describe Matrix	e to tne	aeptn ne		iment the indicator ox Features	or confirm	n the abs	ence of indicators.)
(inches)	Color (moist)	%	Colo	or (moist)		Loc ²	Texture	Remarks
0-16	10YR 3/2	100					gravsiltl	oam
							<u> </u>	
	-							
							-	
	-							
					S=Covered or Coate	ed Sand Gr		² Location: PL=Pore Lining, M=Matrix.
=	Indicators: (Appli	icable to						dicators for Problematic Hydric Soils ³ :
Histosol				Sandy Redox (2 cm Muck (A10)
	oipedon (A2)			Stripped Matrix	, ,			Red Parent Material (TF2)
_	stic (A3)				Mineral (F1) (except	MLRA 1)		Very Shallow Dark Surface (TF12)
_ , •	en Sulfide (A4)	(0.4.4)		Loamy Gleyed				Other (Explain in Remarks)
	d Below Dark Surfac ark Surface (A12)	ce (A11)		Depleted Matri: Redox Dark Su	, ,		3 _{ln}	dicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark	, ,		111	wetland hydrology must be present,
	Gleyed Matrix (S4)			Redox Depress	, ,			unless disturbed or problematic.
-	Layer (if present):			redox Bepress	510110 (1 0)			arriess distarsed of problematic.
Type:								
	iches):						Llydria	Soil Present? Yes □ No ⊠
Remarks:				•			пушт	, soil Present? Tes No
HYDROLO)GY							
	drology Indicators	S :						
Primary Indi	cators (minimum of	one requ	uired; ch	eck all that app	oly)			Secondary Indicators (2 or more required)
Surface	Water (A1)	-		☐ Water-Sta	ained Leaves (B9) (e	xcept MLR		☐ Water-Stained Leaves (B9) (MLRA 1, 2,
	ater Table (A2)				A, and 4B)			4A, and 4B)
☐ Saturation				☐ Salt Crust	•			☐ Drainage Patterns (B10)
	larks (B1)			=	vertebrates (B13)			☐ Dry-Season Water Table (C2)
	nt Deposits (B2)			•	Sulfide Odor (C1)			☐ Saturation Visible on Aerial Imagery (C9)
	posits (B3)				Rhizospheres along	Living Root		Geomorphic Position (D2)
	at or Crust (B4)				of Reduced Iron (C4	_		☐ Shallow Aquitard (D3)
	oosits (B5)				on Reduction in Tille	•		FAC-Neutral Test (D5)
	Soil Cracks (B6)			_	r Stressed Plants (D	` '	,	☐ Raised Ant Mounds (D6) (LRR A)
	on Visible on Aerial	Imagery	(B7)		plain in Remarks)	., (=)	•	☐ Frost-Heave Hummocks (D7)
	/ Vegetated Conca		` '	55. (LX	r.a			
Field Obser		2 20,100	(20)					
Surface Wat		Yes 🗌	No ⊠	Denth (inche	es):			
Water Table		Yes 🗆	No ⊠		es):	181-41	and Live	rology Procent2 Vec 🗆 Ne 🕅
Saturation F (includes ca	resent? pillary fringe)	Yes 🗌	No ⊠	Debtii (inche	es):	vvetla	ани нуа	rology Present? Yes ☐ No ⊠
		m gauge	, monitor	ing well, aerial	photos, previous ins	spections), i	if availab	le:
Remarks:								

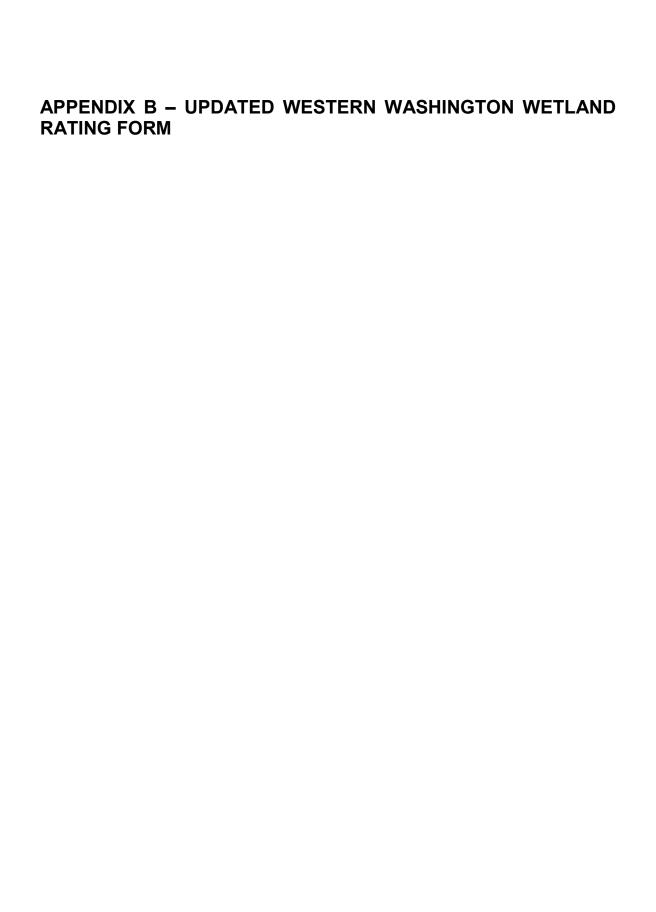
Project/Site: Lacamas Heights Elemen	tary School		City/County: Camas/Clark County Sampling Date: 03/					
Applicant/Owner: Camas School Distri	ct				State: Washington	Sampling Point: 15		
Investigator(s): Kevin Grosz - The Res	ource Company, Inc.			Section, To	ownship, Range: <u>NW 27, T</u>	02N, R03E, W.M.		
Landform (hillslope, terrace, etc.): hills	lope		Local reli	ief (concave,	convex, none): concave	Slope (%): 8	to 10	
Subregion (LRR): A		_ Lat:			Long:	ong: Datum:		
Soil Map Unit Name: Lauren gravelly le								
Are climatic / hydrologic conditions on								
Are Vegetation, Soil, or I								
Are Vegetation, Soil, or I					ed, explain any answers in			
SUMMARY OF FINDINGS - A							etc.	
Hydrophytic Vegetation Present?	Yes ⊠ No □							
Hydric Soil Present?	Yes ⊠ No □			he Sampled hin a Wetlar		• 🗆		
Wetland Hydrology Present?	Yes ⊠ No 🗌		Witi	iiii a vvetiai	iu: les⊠ N	о <u> </u>		
Remarks:								
VECETATION								
VEGETATION – Use scientifi	c names of plan		Daminan	4 loodinatas	Daminanaa Taatuusuks	h a a fi		
Tree Stratum (Plot size: 5ft)		% Cover		t Indicator <u>Status</u>	Dominance Test works Number of Dominant Sp			
1				. <u></u>	That Are OBL, FACW, o		A)	
2					Total Number of Domina	ant		
3				·	Species Across All Strat		3)	
4					Percent of Dominant Sp	ecies		
Sapling/Shrub Stratum (Plot size: 5	ft)		= Total (Cover	That Are OBL, FACW, o	or FAC: <u>100</u> (A	√B)	
1	_ ′				Prevalence Index work	sheet:		
2.					Total % Cover of:	Multiply by:		
3					OBL species	x 1 =		
4					*	x 2 =		
5						x 3 =		
Herb Stratum (Plot size: 5ft)			= Total (Cover		x 4 =		
4. Demonstrate and demonstration		15	No	FACW		x 5 =(A)	(B)	
		20	Yes	FAC	Column Totals.	(^)	(D)	
3. Alopecurus pratensis		<u>55</u>	Yes	FAC		= B/A =		
4. Poa pratensis		10	No	FAC	Hydrophytic Vegetatio			
5				·	Rapid Test for Hydro	. , ,		
6					☑ Dominance Test is >☐ Prevalence Index is			
7						≤ວ.∪ tations¹ (Provide supporting	a	
8					data in Remarks	or on a separate sheet)	9	
9 10					☐ Wetland Non-Vascu	lar Plants ¹		
11						hytic Vegetation ¹ (Explain)		
		100			¹ Indicators of hydric soil be present, unless distu	and wetland hydrology mus	ıst	
Woody Vine Stratum (Plot size: 5m)					be present, unless dista			
1					Hydrophytic			
2		<u>v</u>			Vegetation Present? Yes	. ⊠ No □		
% Bare Ground in Herb Stratum 0			= Total (Jover	Fresent: 168	s⊠ No□		
Remarks:					<u>I</u>			

Sampling Point: 15

Depth	Matrix			Redo	ox Featur	<u>es</u>			sence of indicators.)
(inches)	Color (moist)	%	Colo	r (moist)	%	Type ¹	Loc ²	Textur	re <u>Remarks</u>
8-0	10YR 3/2	80	<u>7.5 \</u>	/R 4/6	20	<u>C</u>	M	Siltclay	<u>loam</u>
8-16	10YR 3/1	70	7.5Y	R 4/6	30	<u>C</u>	<u>M</u>	siltclay	loam
	-				_				
					_			-	
	Concentration, D=D Indicators: (Appl	•					ed Sand Gr		² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
Histosol		icable ic				iteu.)			2 cm Muck (A10)
	pipedon (A2)			Sandy Redox (Stripped Matrix					Red Parent Material (TF2)
	istic (A3)			_oamy Mucky I		1) (except	MLRA 1)		Very Shallow Dark Surface (TF12)
	en Sulfide (A4)			_oamy Gleyed	•		,		Other (Explain in Remarks)
☐ Deplete	d Below Dark Surfa	ice (A11)	□ I	Depleted Matrix	k (F3)	,			,
	ark Surface (A12)			Redox Dark Su	•	•		³ lr	ndicators of hydrophytic vegetation and
	Mucky Mineral (S1)			Depleted Dark		,			wetland hydrology must be present,
-	Bleyed Matrix (S4)			Redox Depress	sions (F8)			_	unless disturbed or problematic.
_	Layer (if present)								
Type:	nches):							1	
рерит (п	icries)							Hydri	ic Soil Present? Yes ⊠ No □
HYDROLC		•							
-	drology Indicator cators (minimum o		uired: che	eck all that ann	lv)				Secondary Indicators (2 or more required)
	Water (A1)	r one req	uncu, on	U Water-Sta		ves (B9) (e	xcept MI R	2Δ	☐ Water-Stained Leaves (B9) (MLRA 1, 2
_	ater Table (A2)				A, and 4I		лооре		4A, and 4B)
☐ Saturation				☐ Salt Crust		,			•
	larks (B1)			☐ Aquatic In	` '	(5.40)			[Drainage Patterns (BT0)
	nt Deposits (B2)					es (B13)			□ Drainage Patterns (B10)□ Dry-Season Water Table (C2)
				☐ Hydrogen		` '			☐ Dry-Season Water Table (C2)
☐ Drift Dep	posits (B3)				Sulfide C	odor (C1)	Living Roo	ts (C3)	
	posits (B3) at or Crust (B4)				Sulfide C Rhizosphe	odor (C1) eres along	•	ts (C3)	☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9
☐ Algal Ma	, ,			☑ Oxidized F☐ Presence	Sulfide C Rhizosphe of Reduc	Odor (C1) eres along ed Iron (C4	•	, ,	☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (CS☐ Geomorphic Position (D2)
☐ Algal Ma	at or Crust (B4)			☑ Oxidized F☐ Presence☐ Recent Iro	Sulfide C Rhizospho of Reduct on Reduct	odor (C1) eres along ed Iron (C4 tion in Tille	1))	☐ Dry-Season Water Table (C2) ☐ Saturation Visible on Aerial Imagery (C9 ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3)
☐ Algal Ma☐ Iron Dep☐ Surface	at or Crust (B4) posits (B5)	l Imagery	r (B7)	☑ Oxidized F☐ Presence☐ Recent Iro	Sulfide C Rhizospho of Reduct on Reduct r Stresseo	odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	l) d Soils (C6)	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati	at or Crust (B4) posits (B5) Soil Cracks (B6)			Oxidized F Presence Recent Iro Stunted or	Sulfide C Rhizospho of Reduct on Reduct r Stresseo	odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	l) d Soils (C6)	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca			Oxidized F Presence Recent Iro Stunted or	Sulfide C Rhizospho of Reduct on Reduct r Stresseo	odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	l) d Soils (C6)	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Algal Ma Iron Dep Surface Inundati Sparsely	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca			Oxidized F Presence Recent Iro Stunted or	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R	odor (C1) eres along ed Iron (C4 tion in Tille d Plants (D	l) d Soils (C6)	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
Algal Ma Iron Dep Surface Inundati Sparsely	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present?	ve Surfac	ce (B8)	○ Oxidized F ○ Presence ○ Recent Irc ○ Stunted or ○ Other (Explanation)	Sulfide C Rhizospho of Reduct on Reduct of Stressed plain in R	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	l) d Soils (C6)	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely Field Obser Surface Wa Water Table Saturation F	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	ve Surfac	No 🗆	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explanation)	Sulfide C Rhizospho of Reduct on Reduct of Stressed plain in R s): <u>2-3</u>	odor (C1) eres along ed Iron (Cation in Tille d Plants (Demarks)	d Soils (C6 1) (LRR A))	 □ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (CS) □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely Field Obsel Surface War Water Table Saturation F	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	ve Surface Yes Yes □ Yes □	No No No No No No No No No No	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explain Control of the Control	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R s): <u>2-3</u> s): <u>surfac</u>	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	d Soils (C6 1) (LRR A)	and Hyd	□ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely Field Obsel Surface Wa Water Table Saturation F (includes ca	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	ve Surface Yes Yes □ Yes □	No No No No No No No No No No	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explain Control of the Control	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R s): <u>2-3</u> s): <u>surfac</u>	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	d Soils (C6 1) (LRR A)	and Hyd	□ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely Field Obsel Surface War Water Table Saturation F	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	ve Surface Yes Yes □ Yes □	No No No No No No No No No No	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explain Control of the Control	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R s): <u>2-3</u> s): <u>surfac</u>	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	d Soils (C6 1) (LRR A)	and Hyd	□ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
Algal Ma Iron Dep Surface Inundati Sparsely Field Obser Surface Wa Water Table Saturation F (includes ca	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	ve Surface Yes Yes □ Yes □	No No No No No No No No No No	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explain Control of the Control	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R s): <u>2-3</u> s): <u>surfac</u>	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	d Soils (C6 1) (LRR A)	and Hyd	□ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)
☐ Algal Ma☐ Iron Dep☐ Surface☐ Inundati☐ Sparsely Field Obser Surface War Water Table Saturation F (includes car Describe Re	at or Crust (B4) posits (B5) Soil Cracks (B6) on Visible on Aeria y Vegetated Conca rvations: ter Present? Present? pillary fringe)	ve Surface Yes Yes □ Yes □	No No No No No No No No No No	□ Oxidized F □ Presence □ Recent Irc □ Stunted or □ Other (Explain Control of the Control	Sulfide C Rhizospho of Reduct on Reduct r Stressed plain in R s): <u>2-3</u> s): <u>surfac</u>	odor (C1) eres along ed Iron (C- tion in Tille d Plants (D emarks)	d Soils (C6 1) (LRR A)	and Hyd	□ Dry-Season Water Table (C2) □ Saturation Visible on Aerial Imagery (C9 □ Geomorphic Position (D2) □ Shallow Aquitard (D3) □ FAC-Neutral Test (D5) □ Raised Ant Mounds (D6) (LRR A) □ Frost-Heave Hummocks (D7)

Project/Site: Lacamas Heights Elementary School		City/Count	y: <u>Camas/C</u>	lark County	Sampling Date: 03/28/16	
Applicant/Owner: Camas School District		State: Washington Sampling Point: 16				
Investigator(s): Kevin Grosz - The Resource Company, Inc			Section, To	ownship, Range: <u>NW 27, T</u>	02N, R03E, W.M.	
Landform (hillslope, terrace, etc.): hillslope						
Subregion (LRR): A						
Soil Map Unit Name: <u>Lauren Gravelly Loam, 8 to 20 % slor</u>						
Are climatic / hydrologic conditions on the site typical for th						
	-					
Are Vegetation, Soil, or Hydrology sig				ormal Circumstances" pres		
Are Vegetation, Soil, or Hydrology nat	urally problei	matic?	(If need	ed, explain any answers ir	Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	samplin	ig point l	ocations, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes ☐ No ☒						
Hydric Soil Present? Yes ☐ No ☒			ne Sampled			
Wetland Hydrology Present? Yes ☐ No ☒		with	nin a Wetlar	nd? Yes □ N	0 🗵	
Remarks:		I				
VEGETATION – Use scientific names of plan	nts.					
		Dominant		Dominance Test works	sheet:	
Tree Stratum (Plot size: 5ft) 1	% Cover			Number of Dominant Sp That Are OBL, FACW, o		
2						
3				Total Number of Domina Species Across All Strat		
4.				,		
		= Total C		Percent of Dominant Sp That Are OBL, FACW, o	ecies or FAC: <u>33</u> (A/B)	
Sapling/Shrub Stratum (Plot size: 5ft)						
1				Prevalence Index work		
2					Multiply by: x 1 =	
3					x 2 =	
4 5				· · · · · · · · · · · · · · · · · · ·	x 3 =	
<u> </u>		= Total C			x 4 =	
Herb Stratum (Plot size: 5ft)		•			x 5 =	
Dactylis glomerata	20	Yes	FACU		(A) (B)	
Anthoxanthum odoratum		Yes	<u>FACU</u>		D/A	
3. Holcus lanatus					= B/A =	
4				Hydrophytic Vegetatio Rapid Test for Hydro		
5				Dominance Test is >	. , .	
6				☐ Prevalence Index is		
7				_	tations ¹ (Provide supporting	
8 9				data in Remarks	or on a separate sheet)	
10.				☐ Wetland Non-Vascu	lar Plants ¹	
11				1	hytic Vegetation ¹ (Explain)	
		= Total C		¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must	
Woody Vine Stratum (Plot size: 5m)			-	be present, unless distu	bed of problematic.	
1				Hydrophytic		
2				Vegetation		
% Bare Ground in Herb Stratum 0		= Total C	Cover	Present? Yes	s □ No ⊠	
Remarks:						

Profile Desc	cription: (Describ	e to the	depth n			r or confirn	n the ab	sence	of indicators.)
Depth	Matrix Calar (maint)	%			x Features	12	Tauduu		Damadra
(inches)	Color (moist)		Coid	or (moist)	% Type ¹	LOC	Textu		Remarks
<u>0-16</u>	10YR 3/2	100			 		<u>grav.si</u>	<u>iltloam</u>	
					. <u> </u>				
-					-		-		
									
¹Type: C=C	oncentration, D=De	epletion.	RM=Rec	luced Matrix. CS	S=Covered or Coa	ted Sand G	rains	² Loc	cation: PL=Pore Lining, M=Matrix.
	Indicators: (Appl	•							rs for Problematic Hydric Soils ³ :
☐ Histosol	(A1)			Sandy Redox (S	S5)] 2 cm	Muck (A10)
☐ Histic Ep	pipedon (A2)			Stripped Matrix				Red	Parent Material (TF2)
☐ Black His	stic (A3)			Loamy Mucky M	lineral (F1) (exce	ot MLRA 1)] Very	Shallow Dark Surface (TF12)
	n Sulfide (A4)			Loamy Gleyed I	, ,			Othe	r (Explain in Remarks)
	Below Dark Surfa	ce (A11)		Depleted Matrix	, ,		3.		
	irk Surface (A12)			Redox Dark Sur	, ,		્ય		rs of hydrophytic vegetation and
-	lucky Mineral (S1) leyed Matrix (S4)			Depleted Dark S Redox Depressi	, ,				nd hydrology must be present, s disturbed or problematic.
-	Layer (if present):			Nedox Deplessi	10115 (1 0)			uilles	s disturbed or problematic.
Type:	Layer (ii present).								
, ,	ches):						Hydr	ic Sail	Present? Yes ☐ No ☒
Remarks:	,			-			riyui	10 3011	Present: 1es 🗌 140 🖂
Remarks.									
HYDROLO	GY								
Wetland Hy	drology Indicators	s:							
Primary India	cators (minimum of	one requ	uired; ch	eck all that appl	y)			Secor	ndary Indicators (2 or more required)
☐ Surface \	Water (A1)			☐ Water-Stai	ned Leaves (B9) (except MLF	RA	□ W	ater-Stained Leaves (B9) (MLRA 1, 2,
☐ High Wa	ter Table (A2)			1, 2, 4	A, and 4B)				4A, and 4B)
☐ Saturation	on (A3)			☐ Salt Crust	(B11)			☐ Dr	rainage Patterns (B10)
☐ Water Mater Mat	arks (B1)			☐ Aquatic Inv	vertebrates (B13)			☐ Dr	y-Season Water Table (C2)
☐ Sedimen	t Deposits (B2)			☐ Hydrogen	Sulfide Odor (C1)			☐ Sa	aturation Visible on Aerial Imagery (C9)
☐ Drift Dep	osits (B3)			☐ Oxidized R	thizospheres alon	g Living Roo	ts (C3)	☐ Ge	eomorphic Position (D2)
_	t or Crust (B4)				of Reduced Iron (C	•		☐ Sh	nallow Aquitard (D3)
	osits (B5)			_	n Reduction in Till	`	,	☐ F <i>F</i>	AC-Neutral Test (D5)
	Soil Cracks (B6)			☐ Stunted or	Stressed Plants (D1) (LRR A))		aised Ant Mounds (D6) (LRR A)
	on Visible on Aerial			☐ Other (Exp	lain in Remarks)			☐ Fr	ost-Heave Hummocks (D7)
	Vegetated Conca	ve Surfac	e (B8)						
Field Obser									
Surface Wat	er Present?	Yes 🗌	No 🖂	Depth (inches	s):				
Water Table	Present?	Yes 🗌	No 🖂	Depth (inches	s):				
Saturation P		Yes 🗌	No 🛛	Depth (inches	s):	Wetl	and Hy	drology	y Present? Yes □ No ⊠
(includes car Describe Re	oillary fringe) corded Data (strea	m gauge	monito	ring well aerial	photos previous i	nspections)	if availa	ple.	
	2000 (00000		,	.ge, acriai	,, p				
Remarks:									



RATING SUMMARY – Western Washington

ate of training 12/	-
classes?YX	
	N
n be combined). ounty GIS, and TR ial characteristics_	
Score for each function based on three ratings (order of ratings	
i	Score for each function based on three

FUNCTION		mprov iter Qı	_	Ну	drol	ogic	ŀ	labita		
				(Circle	the ap	propri	ate ra	tings	
Site Potential	Н	M	L	Н	М	(L)	Н	M	L	
Landscape Potential	Н	M	L	\oplus	М	L	Н	0	L	
Value	Θ	М	L	Н	М	(L)	Θ	M	L	TOTAL
Score Based on Ratings		7			5			7		19

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	Х	-

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	B1
Hydroperiods	D 1.4, H 1.2	B2
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	B2
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	B1
Map of the contributing basin	D 4.3, D 5.3	В3
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	B6-8

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	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)? **YES - Freshwater Tidal Fringe NO - Saltwater Tidal Fringe (Estuarine)** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? X The wetland is on a slope (*slope can be very gradual*). X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, X The water leaves the wetland **without being impounded**. **(YES)**- The wetland class is **Slope** NO - go to 5 NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

__The overbank flooding occurs at least once every 2 years.

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

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

DEPRESSIONAL AND FLATS WETLANDS Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	1
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):	
Wetland has persistent, ungrazed, plants > 95% of area points = 5	
Wetland has persistent, ungrazed, plants $> \frac{1}{2}$ of area points = 3	
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area points = 1	
Wetland has persistent, ungrazed plants $<^1/_{10}$ of area points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation:	
This is the area that is ponded for at least 2 months. See description in manual.	
Area seasonally ponded is > ½ total area of wetland points = 4	
Area seasonally ponded is > ¼ total area of wetland points = 2	
Area seasonally ponded is < ¼ total area of wetland points = 0	0
Total for D 1 Add the points in the boxes above	6
Rating of Site Potential If score is:12-16 = H X 6-11 = M0-5 = L Record the rating on the first pa	ge
D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
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	0
Total for D 2 Add the points in the boxes above	2
Rating of Landscape Potential If score is: 3 or 4 = H X _1 or 2 = M0 = L Record the rating on the fin	st page
D 3.0. Is the water quality improvement provided by the site valuable to society?	
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	1
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	1
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 for the basin in which the unit is found)? Yes = 2 No = 0	2
Total for D 3 Add the points in the boxes above	4
Rating of Value If score is: X 2-4 = H 1 = M 0 = L Record the rating on the first page	_

DEPRESSIONAL AND FLATS WETLANDS Hydrologic Functions Indicators that the site functions to reduce fleeding and stream degradate	ion
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradat	1011
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. <u>Characteristics of surface water outflows from the wetland</u> :	
Wetland is a depression or flat depression with no surface water leaving it (no outlet) points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 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	0
	Ü
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands	
with no outlet, measure from the surface of permanent water or if dry, the deepest part. 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	0
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin	
contributing surface water to the wetland to the area of the wetland unit itself.	
The area of the basin is less than 10 times the area of the unit points = 5	
The area of the basin is 10 to 100 times the area of the unit points = 3	
The area of the basin is more than 100 times the area of the unit points = 0	0
Entire wetland is in the Flats class points = 5	0
Total for D 4 Add the points in the boxes above	0
Rating of Site Potential If score is:12-16 = H6-11 = M \times 0-5 = L Record the rating on the	first page
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at	1
>1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1
Total for D 5 Add the points in the boxes above	3
Rating of Landscape Potential If score is: $X = H = 1$ or $2 = M = 0 = L$ Record the rating on the	first page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	-
D 6.1. The unit is in a landscape that has flooding problems. 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 down-gradient 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 down-gradient of unit. points = 2	
• Surface flooding problems are in a sub-basin farther down-gradient. 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</i> points = 0	
There are no problems with flooding downstream of the wetland. points = 0	0
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	
Yes = 2 No = 0	0
Total for D 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

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 __Permanently flowing stream or river in, or adjacent to, the wetland X Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 2 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 1 < 5 species H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 2

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.	1
XLarge, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	I
X Standing snags (dbh > 4 in) within the wetland	1
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	I
strata)	4
Total for H 1 Add the points in the boxes above	10
Rating of Site Potential If score is:15-18 = H \times _7-14 = M0-6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>).	

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat $\frac{4}{}$ + [(% moderate and low intensity land uses)/2] $\frac{0}{}$ = $\frac{4}{}$ %	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $34 + (\% \text{ moderate and low intensity land uses})/2] 21 =55 \%$	1
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10-50% and in 1-3 patches points = 2	I
Undisturbed habitat 10-50% and > 3 patches points = 1	I
Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	1
≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	3

Rating of Landscape Potential If score is: ___4-6 = H \underline{X} _1-3 = M ___< 1 = L

Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score	2
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	<u>)</u>
$\frac{X}{X}$ It has 3 or more priority habitats within 100 m (see next page)	
 It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists 	s)
 It is mapped as a location for an individual WDFW priority species 	
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 	
 It has been categorized as an important habitat site in a local or regional comprehensive plan, in a 	
Shoreline Master Plan, or in a watershed plan	
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	L
Site does not meet any of the criteria above points = 0) 2

Rating of Value If score is: X = H 1 = M __0 = L

Record the rating on the first page

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No = Not a forested wetland for this section	Cat. I
C 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cat. I
C 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II
 At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. The wetland is larger than ¹/₁₀ ac (4350 ft²) 	
Yes = Category I No = Category II	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
Long Beach Peninsula: Lands west of SR 103Grayland-Westport: Lands west of SR 105	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No= not an interdunal wetland for rating	
6C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
C 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3	Cat. III
• ·	Cat IV
C 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?	Cat. IV

Wetland name or number A

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RATING SUMMARY – Western Washington

Name of wetland (or ID #):	Wetland B	Date of site visit: <u>3/28/1</u> 6	
Rated byKevin Grosz	Trained by	Ecology?X YesNo Date of training 12/10)/14
HGM Class used for rating	Depressional	Wetland has multiple HGM classes?YY	<u>X</u> 1
Source of base aerial OVERALL WETLAND CATEO	photo/map <u>ESRI Ba</u>	igures requested (figures can be combined). Base Map - Imagery, Clark County GIS, and TRC sed on functions X or special characteristics	
Category II – X Category III – Category IV -	Total score = 23 - 27 Total score = 20 - 2 - Total score = 16 - 1 - Total score = 9 - 15	Score for each function based on three ratings (order of ratings is not important)	
FUNCTION Improving Water Quali		Habitat "Important) 9 = H.H.H	

FUNCTION	Improving Water Quality		Hydrologic			Habitat				
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	М	(L)	Н	\otimes	L	Н	М	(L)	
Landscape Potential	Н	\bigcirc	L	Н	M	L	\oplus	М	L	
Value	Θ	М	L	Н	М	(L)	Н	M	L	TOTAL
Score Based on Ratings		6			5			6		17

Score for each function based on three ratings (order of ratings is not important)
9 = H,H,H 8 = H,H,M 7 = H,H,L 7 = H,M,M 6 = H,M,L 6 = M,M,M 5 = H,L,L 5 = M,M,L 4 = M,L,L 3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	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	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	B1
Hydroperiods	D 1.4, H 1.2	B2
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	B1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	B1
Map of the contributing basin	D 4.3, D 5.3	В3
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	B6-8

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	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)? **YES - Freshwater Tidal Fringe NO - Saltwater Tidal Fringe (Estuarine)** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? ____The wetland is on a slope (*slope can be very gradual*), The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, The water leaves the wetland without being impounded. (NO)- go to 5 **YES** - The wetland class is **Slope NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

__The overbank flooding occurs at least once every 2 years.

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

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

DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet).	
points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shrub, and/or Forested Cowardin classes):	
Wetland has persistent, ungrazed, plants > 95% of area points = 5	
Wetland has persistent, ungrazed, plants > ½ of area points = 3	
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area points = 1	
Wetland has persistent, ungrazed plants $<^1/_{10}$ of area points = 0	0
D 1.4. Characteristics of seasonal ponding or inundation:	
This is the area that is ponded for at least 2 months. See description in manual.	
Area seasonally ponded is > ½ total area of wetland points = 4	
Area seasonally ponded is > 1/4 total area of wetland points = 2	_
Area seasonally ponded is < 1/4 total area of wetland points = 0	0
Total for D 1 Add the points in the boxes above	2
Rating of Site Potential If score is:12-16 = H	ge
D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 2.2. Is $> 10\%$ of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
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	0
Total for D 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is:3 or 4 = H $\frac{X}{1}$ 1 or 2 = M0 = L Record the rating on the first	st page
D 3.0. Is the water quality improvement provided by the site valuable to society?	
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	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the 303(d) list? Yes = $1 \text{ No} = 0$	1
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 for the basin in which the unit is found)? Yes = 2 No = 0	2
Total for D 3 Add the points in the boxes above	3
Rating of Value If score is: X 2-4 = H1 = M0 = L Record the rating on the first page	

DEPRESSIONAL AND FLATS WETLANDS Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation		
D 4.0. Does the site have the potential to reduce flooding and erosion?		
D 4.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	2	
D 4.2. <u>Depth of storage during wet periods:</u> 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	3	
D 4.3. Contribution of the wetland to storage in the watershed: <i>Estimate the ratio of the area of upstream basin</i>		
contributing surface water to the wetland to the area of the wetland unit itself. The area of the basin is less than 10 times the area of the unit The area of the basin is 10 to 100 times the area of the unit The area of the basin is more than 100 times the area of the unit Entire wetland is in the Flats class points = 5 points = 5	5	
Total for D 4 Add the points in the boxes above	10	
Rating of Site Potential If score is: 12-16 = H $\frac{X}{6}$ -11 = M0-5 = L		
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?	<u> </u>	
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0	
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1	
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0		
Total for D 5 Add the points in the boxes above	2	
Rating of Landscape Potential If score is:3 = H \times 1 or 2 = M0 = L Record the rating on the first page		
D 6.0. Are the hydrologic functions provided by the site valuable to society?		
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient 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 down-gradient of unit. points = 2		
• Surface flooding problems are in a sub-basin farther down-gradient. 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. Explain why points = 0		
There are no problems with flooding downstream of the wetland. points = 0	0	
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0		
Total for D 6 Add the points in the boxes above	0	

Rating of Value If score is: ___2-4 = H ___1 = M \underline{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 or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 ___Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 0 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 __ _Seasonally flooded or inundated 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 1 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0 H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 1

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	
where wood is exposed)	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	0
Total for H 1 Add the points in the boxes above	3
Rating of Site Potential If score is:15-18 = H7-14 = M \times 0-6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: % undisturbed habitat $0 + [(\% \text{ moderate and low intensity land uses})/2] 26 = 26 %$	
 : :	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	2
< 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $30 + (\% \text{ moderate and low intensity land uses})/2) 28 = 58 \%$	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	
≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	5
Rating of Landscape Potential If score is: X 4-6 = H 1-3 = M < 1 = L Record the rating on the	ne first page
112.0 to the helifest constitution the effect of the latest and the effect of the latest and the effect of the eff	
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score	
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
 It has 3 or more priority habitats within 100 m (see next page) 	
— It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)	
$\frac{X}{X}$ It is mapped as a location for an individual WDFW priority species	
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 	
 It has been categorized as an important habitat site in a local or regional comprehensive plan, in a 	
Shoreline Master Plan, or in a watershed plan	,
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	
Site does not meet any of the criteria above	. 1

Site does not meet any of the criteria above

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

Record the rating on the first page

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

SC 4.0. Forested Wetlands	
Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No= Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No = Not a wetland in a coastal lagoon	Cat. I
 5C 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. II
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
Long Beach Peninsula: Lands west of SR 103Grayland-Westport: Lands west of SR 105	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No= not an interdunal wetland for rating	
6C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3	Cat. III
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. IV
Category of wetland based on Special Characteristics	
	N/A

Wetland name or number \underline{B}

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): _	Wetland C	Date of site visit: <u>3/28/1</u> 6
Rated by <u>Kevin Grosz</u>	Trained by Ecology?	$2 \underline{\mathrm{X}}$ YesNo Date of training 12/10/14
HGM Class used for rating	Slope Wetland h	as multiple HGM classes?YXN
	-	quested (figures can be combined). - Imagery, Clark County GIS, and TRC GIS
OVERALL WETLAND CAT	TEGORY <u>III</u> (based on fu	unctions $\underline{\mathrm{X}}$ or special characteristics)

1. Category of wetland based on FUNCTIONS

FUNCTION		nprov ter Qı	_	H	ydrolo	ogic		Habit	at	
					Circle	the ap	propr	iate ro	atings	
Site Potential	Н	М	<u>(L)</u>	Н	М	(L)	Н	М	(L)	
Landscape Potential	Н	M	L	Н	\bigcirc	L	\oplus	М	L	
Value	Θ	М	L	Н	М	(L)	Н	M	L	TOTAL
Score Based on Ratings		6			4			6		16

Score for each function based on three ratings (order of ratings is not *important)* 9 = H,H,H8 = H,H,M7 = H,H,L7 = H, M, M6 = H,M,L 6 = M,M,M5 = H,L,L5 = M,M,L4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I II		
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above	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 (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	BI
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		B1
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	B6-8

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)? **YES - Freshwater Tidal Fringe NO - Saltwater Tidal Fringe (Estuarine)** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? X The wetland is on a slope (*slope can be very gradual*). X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, X The water leaves the wetland **without being impounded**. **(YES)**- The wetland class is **Slope** NO - go to 5 NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that

__The overbank flooding occurs at least once every 2 years.

stream or river.

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

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

SLOPE WETLANDS Water Quality Functions - Indicators that the site function	ns to improve water quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 ft vertice 100 ft of horizontal distance)	cal drop in elevation for every	
Slope is 1% or less	points = 3	
Slope is > 1%-2%	points = 2	
Slope is > 2%-5%	points = 1	
Slope is greater than 5%	points = 0	0
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NF	RCS definitions): Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants:		
Choose the points appropriate for the description that best fits the plants in the have trouble seeing the soil surface (>75% cover), and uncut means not grazed than 6 in.	-	
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > 1/4 of area	points = 1	0
Does not meet any of the criteria above for plants	points = 0	0
Total for S 1 Add	d the points in the boxes above	0
Rating of Site Potential If score is:12 = H 6-11 = M X_0 -5 = L	Record the rating on th	ne first p

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

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

Total for S 2

Add the points in the boxes above

Rating of Landscape Potential If score is: $X_1-2 = M_0$

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	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the $303(d)$ list. Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? <i>Answer YES</i> if there is a TMDL for the basin in which unit is found. Yes = 2 No = 0	2
Total for S 3 Add the points in the boxes above	3

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	ng and stream erosi	ion
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 for the description that best fits conditions in the wetland. Stems of plants should be thick e in), or dense enough, to remain erect during surface flows. Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions		0

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

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	1
37	

Rating of Landscape Potential If score is: $X_1 = M_0$

Record the rating on the first page

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

Rating of Value If score is: ___2-4 = H ____1 = M \underline{X} _0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 ___Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 0 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 __Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 Permanently flowing stream or river in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 0 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 < 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 0

H 1.5. Special habitat features:		
Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i> Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).		
Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)		
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)		
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree		
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)		
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are		
permanently or seasonally inundated (structures for egg-laying by amphibians)		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	0	
strata)	0	
Total for H 1 Add the points in the boxes above	1	
Rating of Site Potential If score is:15-18 = H	the first page	
H 2.0. Does the landscape have the potential to support the habitat functions of the site?		
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate: % undisturbed habitat $0 + [(\% \text{ moderate and low intensity land uses})/2] 11 = 11 %$		
If total accessible habitat is:		
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3		
20-33% of 1 km Polygon points = 2		
10-19% of 1 km Polygon points = 1		
< 10% of 1 km Polygon points = 0	1	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.		
Calculate: % undisturbed habitat $32 + (\% \text{ moderate and low intensity land uses})/2] 25 = 57 \%$		
Undisturbed habitat > 50% of Polygon points = 3		
Undisturbed habitat 10-50% and in 1-3 patches points = 2		
Undisturbed habitat 10-50% and > 3 patches points = 1		
Undisturbed habitat < 10% of 1 km Polygon points = 0	3	
H 2.3. Land use intensity in 1 km Polygon: If		
> 50% of 1 km Polygon is high intensity land use points = (-2)		
≤ 50% of 1 km Polygon is high intensity points = 0	0	
Total for H 2 Add the points in the boxes above	4	
Rating of Landscape Potential If score is: \underline{X} 4-6 = H 1-3 = M< 1 = L Record the rating on the	ne first page	
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score		
that applies to the wetland being rated.		
Site meets ANY of the following criteria: points = 2		
 — It has 3 or more priority habitats within 100 m (see next page) 		
 It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) 		
 It is mapped as a location for an individual WDFW priority species 		
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 		
— It has been categorized as an important habitat site in a local or regional comprehensive plan, in a		
Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1		
	1	
Site does not meet any of the criteria above points = 0	1	
Rating of Value If score is: $2 = H$ $X_1 = M$ $0 = L$ Record the rating on	tne first page	

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Cat. I Cat. II Cat.	CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS	
Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes—Go to SC 1.1 (No) Not an estuarine wetland SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes—Category 1 No—Go to SC 1.2 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 Sparting, see page 25) —At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. —The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes—Category 1 No—Category I SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.3 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.5 Yes—On to SC 2.5 Yes—On to SC 2.5 Yes—On to SC 2.6 Yes—On to SC 2.6 Yes—On to SC 2.7 Yes—On to SC 2.7 Yes—On to SC 2.8 Yes—On to SC 2.8 Yes—On to SC 2.9 Yes	Wetland Type	Category
Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes—Go to SC 1.1 (No) Not an estuarine wetland SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes—Category 1 No—Go to SC 1.2 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 Sparting, see page 25) —At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. —The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes—Category 1 No—Category I SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.2 Yes—Go to SC 2.3 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.4 Yes—On to SC 2.5 Yes—On to SC 2.5 Yes—On to SC 2.5 Yes—On to SC 2.6 Yes—On to SC 2.6 Yes—On to SC 2.7 Yes—On to SC 2.7 Yes—On to SC 2.8 Yes—On to SC 2.8 Yes—On to SC 2.9 Yes	Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
Does the wetland meet the following criteria for Estuarine wetlands? — The deginal water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes – Go to SC 1.1 No. Not an estuarine wetland SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAG 332-30-1517 Yes = Category 1 No - Go to SC 1.2 SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) — At least % 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. Yes = Category 1 No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Co to SC 2.2 (10) – Go to SC 2.3 (10) – Go to SC 2.4 (10) – Not a WHCV SC 2.3. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category 1 No = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category 1 (10) – Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or		
— The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes—Go to SC 1.1 (No) Not an estuarine wetland SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category I No Go to SC 1.2 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 Sparting, see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WAD Epartment of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Go to SC 2.2 Wo—Go to SC 2.3 SC 2.2. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dn.r.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes = Category I Yes = Category I No = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I Yes = Category I Yes = Category I O—Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YEs you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes = Go to SC 3.3 O—So to S		
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 332-30-1512 Yes = Category 1 No - Go to SC 1.2 SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? —The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are <i>Spartina</i> , see page 25) —At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. —The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category 1 No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Go to SC 2.2 No)—Go to SC 2.3 SC 2.3. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category 1 No = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category 1 No = Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes = Go to SC 3.3 No Go to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16	_	
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 332-30-15.7? Yes = Category I No - Go to SC 1.2 SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = Category I No = Category I SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Go to SC 2.2 (No) = Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = Category I No = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I Yes = Category I Yes = Category I No = Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soils, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes = Go to SC 3.3 No = So to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.	_	
Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = Category1	SC 1.1 Is the wetland within a National Wildlife Refuge National Park National Estuary Reserve Natural Area	
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, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Sporting, see page 25) — At least ½ 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. Yes = Category I SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes = Category I No = Not a WHCV SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes = Contact WNHP/WDNR and go to SC 2.4 Wo = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I No = Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil, either peats or mucks, that are least han 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes = Go to SC 3.3 (Wo) = Is not a bog No = Go to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. Cat. I	=	
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) — At least % of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or unmowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value on the WDNR database as a Wetland of High Conservation Value with the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes = Contact WNHP/WDNR and go to SC 2.4 (No) = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = Category I (No) = Not a WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes = Go to SC 3.3 (No) = Is not a bog SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = is a Category I bog No = Go to SC 3.4 NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the	=	Cat. I
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SC 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No= Not a forested wetland for this section	Cat. I
C 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes – Go to SC 5.1 No= Not a wetland in a coastal lagoon	Cat. I
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
— Long Beach Peninsula: Lands west of SR 103	Cat I
 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 	Cuti
Yes – Go to SC 6.1 No= not an interdunal wetland for rating	
6C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3	Cat. III
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. IV
Category of wetland based on Special Characteristics	

Wetland name or number <u>C</u>

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): _	Wetland D	Date of site visit: <u>_3/29/</u> 16
Rated by Kevin Grosz	_ Trained by Ecology? X Yes _	No Date of training 12/10/14
HGM Class used for rating	Slope Wetland has mul	ltiple HGM classes?YXN

NOTE: Form is not complete without the figures requested (figures can be combined). Source of base aerial photo/map <u>ESRI Base Map - Imagery</u>, Clark County GIS, and TRC GIS

OVERALL WETLAND CATEGORY \underline{III} (based on functions \underline{X} or special characteristics $\underline{\hspace{0.5cm}}$)

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			Habita		
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	М	(L)	Н	\otimes	L	Н	(M)	L	
Landscape Potential	Н	М	(L)	Н	M	(L)	Н	(L	
Value	Θ	М	L	Н	М	(L)	Θ	М	L	TOTAL
Score Based on Ratings		5			5			7		17

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY	
Estuarine	I	II
Wetland of High Conservation Value	I	
Bog	I	
Mature Forest	I	
Old Growth Forest	I	
Coastal Lagoon	I	II
Interdunal	I II	III IV
None of the above	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 (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	BI
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		B1
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	B6-8

HGM Classification of Wetlands in Western Washington

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

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8. 1. Are the water levels in the entire unit usually controlled by tides except during floods? (NO)- go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? **NO - Saltwater Tidal Fringe (Estuarine) YES - Freshwater Tidal Fringe** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? X The wetland is on a slope (*slope can be very gradual*). X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, X The water leaves the wetland **without being impounded**. **(YES)**- The wetland class is **Slope** NO – go to 5 NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

__The overbank flooding occurs at least once every 2 years.

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

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

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

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

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = $1 \text{ No} = 0$	0
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
Total for S 2 Add the points in the boxes above	0

Rating of Landscape Potential If score is: 1-2 = M \overline{X} 0 = L

Record the rating on the first page

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

Rating of Value If score is: $X_2-4 = H_0$ 1 = M 0 = L

Record the rating on the first page

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

Rating of Site Potential If score is: X = M 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	0

Rating of Landscape Potential If score is: $1 = M \times X = 0 = L$

Record the rating on the first page

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

Rating of Value If score is: ___2-4 = H ___1 = M \underline{X} _0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 __ _Emergent 3 structures: points = 2 Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: X The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 1 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 __ _Seasonally flooded or inundated 3 types present: points = 2 Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 X Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 1 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 points = 0 1 < 5 species H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 2

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. X Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
$-\frac{X}{X}$ Standing snags (dbh > 4 in) within the wetland $-\frac{X}{X}$ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed)	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
X Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata)	4
Total for H 1 Add the points in the boxes above	9
Rating of Site Potential If score is:15-18 = H \underline{X} 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? H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit). % undisturbed habitat $\underline{5}$ + [(% moderate and low intensity land uses)/2] $\underline{0}$ = $\underline{5}$ % Calculate: If total accessible habitat is: $> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3 20-33% of 1 km Polygon points = 2 10-19% of 1 km Polygon points = 1 0 < 10% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. % undisturbed habitat $\underline{39}$ + [(% moderate and low intensity land uses)/2] 24 = ___63 _% Calculate: Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10-50% and in 1-3 patches points = 2 Undisturbed habitat 10-50% and > 3 patches points = 1 3 Undisturbed habitat < 10% of 1 km Polygon points = 0H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = (-2)0 ≤ 50% of 1 km Polygon is high intensity points = 0

Rating of Landscape Potential If score is: ___4-6 = H \times ___< 1 = L

Record the rating on the first page

3

Add the points in the boxes above

H 3.0. Is the habitat provided by the site valuable to society?		-
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose	only the highest score	
that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
$\frac{X}{X}$ It has 3 or more priority habitats within 100 m (see next page)		
 It provides habitat for Threatened or Endangered species (any plant or animal on the 	e state or federal lists)	
 It is mapped as a location for an individual WDFW priority species 		
 It is a Wetland of High Conservation Value as determined by the Department of Natu 	ural Resources	
 It has been categorized as an important habitat site in a local or regional comprehen 	sive plan, in a	
Shoreline Master Plan, or in a watershed plan		
Site has 1 or 2 priority habitats (listed on next page) within 100 m	points = 1	
Site does not meet any of the criteria above	points = 0	2

Rating of Value If score is: $X_2 = H$ 1 = M ___0 =

Total for H 2

Record the rating on the first page

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

C 4.0. Forested Wetlands	
Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate</i>	
the wetland based on its functions.	
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered 	
canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of	
age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more.	
 Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No= Not a forested wetland for this section	Cat. I
C 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
— The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from	
marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
— The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt)	Cat. I
during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 (No)= Not a wetland in a coastal lagoon C 5.1. Does the wetland meet all of the following three conditions?	
— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less	
than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	Cat. II
— At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	
— The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
Yes = Category I No = Category II	
C 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If	
you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	
— Long Beach Peninsula: Lands west of SR 103	
Grayland-Westport: Lands west of SR 105	Cat I
Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Yes – Go to SC 6.1 No= not an interdunal wetland for rating	
C 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M	Cat. II
for the three aspects of function)? Yes = Category I No – Go to SC 6.2	
C 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	Cat. II
Yes = Category II No – Go to SC 6.3	Cat. II
C. C. Is the unit between 0.1 and 1 as or is it in a mosais of watlands that is between 0.1 and 1 as 2	
C 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category IV No = Category IV	
C 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No = Category IV	Cat. IV

Wetland name or number \underline{D}

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): _Wetland I	Date of site visit: <u>3/28/</u> 2016
Rated by: <u>Kevin Grosz</u>	Class used for rating Slope Wetland has multiple HGM classes?YXN NOTE: Form is not complete without the figures requested (figures can be combined).
HGM Class used for rating Slope	Wetland has multiple HGM classes?YXN
•	•
1. Category of wetland based o	n 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		nprov ter Q	ing uality	Н	ydrolo	ogic		Habita	it	
					Circle	the ap	propr	iate ra	tings	
Site Potential	Н	М	(L)	Н	М	(Н	\bigcirc	L	
Landscape Potential	Н	\otimes	L	Н	\bigcirc	L	Н	M	L	
Value	Θ	M	L	Н	М	(L)	Θ	М	L	TOTAL
Score Based on Ratings		6			4			7		17

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY		
Estuarine	I II		
Wetland of High Conservation Value	I		
Bog	I		
Mature Forest	I		
Old Growth Forest	I		
Coastal Lagoon	I	II	
Interdunal	I II	III IV	
None of the above	N/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	
Hydroperiods	D 1.4, H 1.2	
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	B1
Hydroperiods	H 1.2	B2
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	BI
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		B1
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	B2
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	B6-8

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated. If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8. 1. Are the water levels in the entire unit usually controlled by tides except during floods? (NO)- go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1 1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)? **NO - Saltwater Tidal Fringe (Estuarine) YES - Freshwater Tidal Fringe** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? X The wetland is on a slope (*slope can be very gradual*). X The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, X The water leaves the wetland **without being impounded**. **(YES)**- The wetland class is **Slope** NO - go to 5 NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that

__The overbank flooding occurs at least once every 2 years.

stream or river.

Wetland name or number <u>E</u>

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

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

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

Rating of Site Potential If score is: 12 = H ____6-11 = M \times __0-5 = L

Record the rating on the first page

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

Rating of Landscape Potential If score is: $X_1-2 = M_0$

Record the rating on the first page

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

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

Record the rating on the first page

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

Rating of Site Potential If score is: 1 = M 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	1

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

Record the rating on the first page

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

Rating of Value If score is: __2-4 = H __1 = M \underline{X} 0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 X Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 X Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 2 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 $X \quad \text{Seasonally flooded or inundated} \\$ 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 X Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 3 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 points = 0 < 5 species H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 2

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
X Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	
where wood is exposed)	
X At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	
strata)	2
Total for H 1 Add the points in the boxes above	10
Rating of Site Potential If score is:15-18 = H \times 7-14 = M0-6 = L	
	the jiist page
H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat $\frac{5}{2}$ + [(% moderate and low intensity land uses)/2] $\frac{19}{2}$ = $\frac{24}{2}$ %	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	2
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	_
Calculate: % undisturbed habitat $\frac{31}{100}$ + [(% moderate and low intensity land uses)/2] $\frac{30}{100}$ = $\frac{61}{100}$ %	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	
Undisturbed habitat 10-50% and > 3 patches points = 1	2
Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	
≤ 50% of 1 km Polygon is high intensity points = 0	0
Total for H 2 Add the points in the boxes above	5
Rating of Landscape Potential If score is: $X_4-6 = H_2-1-3 = M_2 < 1 = L$ Record the rating on the score is: $X_4-6 = H_2-1-3 = M_2 < 1 = L$	he first page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose only the highest score</i>	
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
The has 3 or more priority habitats within 100 m (see next page)	
— It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)	
 It is mapped as a location for an individual WDFW priority species 	
 It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 	
 It has been categorized as an important habitat site in a local or regional comprehensive plan, in a 	
Shoreline Master Plan, or in a watershed plan	
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	
Site does not meet any of the criteria above points = 0	2
Rating of Value If score is: $X_2 = H_1 = M_2 = 0 = L$ Record the rating on	the first page

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

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

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

Wetland name or number \underline{E}

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RATING SUMMARY – Western Washington

Name of wetland (or ID #): <u>Wet</u>	tland F	Date of site visit: <u>3/29/</u> 16	
Rated by <u>Kevin Grosz</u>	Trained by Ecology?_	X YesNo Date of training _ <u>12/10/20</u>)14
HGM Class used for rating Depr	ressional Wetland ha	nas multiple HGM classes?Y X_N	
Source of base aerial p	photo/map ESRI Base Map -	quested (figures can be combined) Imagery, Clark County GIS, and TRC GIS	
OVERALL WETLAND CATEG	GORY ¹¹¹ (based on for	functions $_X$ or special characteristics $__$	_)
1. Category of wetland bas	sed on FUNCTIONS		
Category I – T	Гotal score = 23 - 27	Coore for cook	
Category II – ⁻	Total score = 20 - 22	Score for each function based	
$\underline{\hspace{1cm}}$ Category III –	·Total score = 16 - 19	on three	
Category IV –	- Total score = 9 - 15	ratings (order of ratings	

FUNCTION		mprov ter Q	ing uality	H	ydrolo	ogic	ı	Habit	at	
					Circle	the ap	propri	iate ro	atings	
Site Potential	Н	М	0	Н	(A)	L	Н	М	(L)	
Landscape Potential	Н	M	L	Н	M	L	\oplus	М	L	
Value	Θ	М	L	Н	М	(L)	Н	М	(L)	TOTAL
Score Based on Ratings		6			5			5		16

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	1	N/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	B1
Hydroperiods	D 1.4, H 1.2	B2
Location of outlet (can be added to map of hydroperiods)	D 1.1, D 4.1	B1
Boundary of area within 150 ft of the wetland (can be added to another figure)	D 2.2, D 5.2	B1
Map of the contributing basin	D 4.3, D 5.3	В3
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	Б.4
polygons for accessible habitat and undisturbed habitat		B4
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	B5
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	B6-8

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of dense trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of dense , rigid trees, shrubs, and herbaceous plants	S 4.1	
(can be added to figure above)		
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including	H 2.1, H 2.2, H 2.3	
polygons for accessible habitat and undisturbed habitat		
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	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)? **YES - Freshwater Tidal Fringe NO - Saltwater Tidal Fringe (Estuarine)** If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands. 2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit. NO go to 3 **YES** - The wetland class is **Flats** If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands. 3. Does the entire wetland unit **meet all** of the following criteria? __The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size: __At least 30% of the open water area is deeper than 6.6 ft (2 m). (NO)- go to 4 **YES** - The wetland class is **Lake Fringe** (Lacustrine Fringe) 4. Does the entire wetland unit **meet all** of the following criteria? ___The wetland is on a slope (*slope can be very gradual*), The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks, The water leaves the wetland **without being impounded**. NO)- go to 5 **YES** - The wetland class is **Slope NOTE**: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep). 5. Does the entire wetland unit **meet all** of the following criteria? The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river.

__The overbank flooding occurs at least once every 2 years.

Wetland name or number <u>F</u>

(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

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

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

DEPRESSIONAL AND FLATS WETLANDS	
Water Quality Functions - Indicators that the site functions to improve water quality	
D 1.0. Does the site have the potential to improve water quality?	
D 1.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet. points = 2	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 1	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions). Yes = 4 No = 0	0
D 1.3. <u>Characteristics and distribution of persistent plants</u> (Emergent, Scrub-shrub, and/or Forested Cowardin classes):	
Wetland has persistent, ungrazed, plants > 95% of area points = 5	
Wetland has persistent, ungrazed, plants > ½ of area points = 3	
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area points = 1	0
Wetland has persistent, ungrazed plants $<^1/_{10}$ of area points = 0	0
D 1.4. <u>Characteristics of seasonal ponding or inundation</u> :	
This is the area that is ponded for at least 2 months. See description in manual.	
Area seasonally ponded is > ½ total area of wetland points = 4	
Area seasonally ponded is > ¼ total area of wetland points = 2	0
Area seasonally ponded is < ¼ total area of wetland points = 0	
Total for D 1 Add the points in the boxes above	2
Rating of Site Potential If score is: 12-16 = H6-11 = M \underline{X} 0-5 = L Record the rating on the first pa	ge
D 2.0. Does the landscape have the potential to support the water quality function of the site?	
D 2.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0
D 2.2. ls > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? Yes = 1 No = 0	0
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	0
Total for D 2 Add the points in the boxes above	1
Rating of Landscape Potential If score is: 3 or 4 = H X 1 or 2 = M 0 = L Record the rating on the fire	st page
D 3.0. Is the water quality improvement provided by the site valuable to society?	
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	0
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	1
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 for the basin in which the unit is found)? Yes = 2 No = 0	1
Total for D 3 Add the points in the boxes above	2
Add the points in the boxes above	

Rating of Value If score is: $X_2-4 = H_3$ 1 = M 0 = L

Record the rating on the first page

DEPRESSIONAL AND FLATS WETLANDS				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation				
D 4.0. Does the site have the potential to reduce flooding and erosion?				
D 4.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression with no surface water leaving it (no outlet) Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outletpoints = 2 Wetland is a flat degreesion (OUESTION 7 on low), whose putlet is a general partly flowing discharge and the flowing discharge in the control of th				
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	2			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the outlet. For wetlands				
with no outlet, measure from the surface of permanent water or if dry, the deepest part.				
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	3			
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of upstream basin				
contributing surface water to the wetland to the area of the wetland unit itself.				
The area of the basin is less than 10 times the area of the unit points = 5				
The area of the basin is 10 to 100 times the area of the unit points = 3				
The area of the basin is more than 100 times the area of the unit points = 0	2			
Entire wetland is in the Flats class points = 5	3			
Total for D 4 Add the points in the boxes above	8			
Rating of Site Potential If score is: 12-16 = H \underline{X} 6-11 = M0-5 = L Record the rating on the	first page			
D 5.0. Does the landscape have the potential to support hydrologic functions of the site?				
D 5.1. Does the wetland receive stormwater discharges? Yes = 1 No = 0	0			
D 5.2. Is >10% of the area within 150 ft of the wetland in land uses that generate excess runoff? Yes = 1 No = 0	1			
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)? Yes = 1 No = 0	1			
Total for D 5 Add the points in the boxes above	2			
Rating of Landscape Potential If score is: $3 = H$ X_1 or $2 = M$ $0 = L$ Record the rating on the	first page			
D 6.0. Are the hydrologic functions provided by the site valuable to society?				
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best matches conditions around the wetland unit being rated. Do not add points. Choose the highest score if more than one condition is met. The wetland captures surface water that would otherwise flow down-gradient 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 down-gradient of unit. points = 2				
• Surface flooding problems are in a sub-basin farther down-gradient. 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</i> points = 0				
There are no problems with flooding downstream of the wetland. points = 0	0			
D 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?				
Yes = 2 No = 0	0			
Total for D 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

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 X Emergent 3 structures: points = 2 ___Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points = 1 Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) 0 that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). Permanently flooded or inundated 4 or more types present: points = 3 Seasonally flooded or inundated 3 types present: points = 2 X Occasionally flooded or inundated 2 types present: points = 1 X Saturated only 1 type present: points = 0 ___Permanently flowing stream or river in, or adjacent to, the wetland Seasonally flowing stream in, or adjacent to, the wetland Lake Fringe wetland 2 points Freshwater tidal wetland 2 points 1 H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 1 points = 0 < 5 species H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Moderate = 2 points Low = 1 point All three diagrams in this row are **HIGH** = 3points 0

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of points.	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long).	
Standing snags (dbh > 4 in) within the wetland	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m)	
over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m)	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree	
slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered	
where wood is exposed)	
At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are	
permanently or seasonally inundated (structures for egg-laying by amphibians)	
\underline{X} Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of	1
strata)	
Total for H 1 Add the points in the boxes above	3
Rating of Site Potential If score is: 15-18 = H7-14 = M \underline{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?	
H 2.1. Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate: % undisturbed habitat $0 + (\% \text{ moderate and low intensity land uses})/2] 13 = 13 %$	
If total accessible habitat is:	
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20-33% of 1 km Polygon points = 2	
10-19% of 1 km Polygon points = 1	
< 10% of 1 km Polygon points = 0	1
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate: % undisturbed habitat $\frac{30}{6}$ + [(% moderate and low intensity land uses)/2] $\frac{26}{6}$ = $\frac{56}{6}$ %	
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10-50% and in 1-3 patches points = 2	
Undisturbed habitat 10-50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	3
H 2.3. Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	
	0
	4
Total for H 2 Add the points in the boxes above	
Rating of Landscape Potential If score is: $X_4-6 = H_1-3 = M_1-3 = M_1$ Record the rating on the	he first page
H 3.0. Is the habitat provided by the site valuable to society?	-
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score	
that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
 — It has 3 or more priority habitats within 100 m (see next page) 	
 It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) 	
 — It is mapped as a location for an individual WDFW priority species 	
 — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources 	
 — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a 	
Shoreline Master Plan, or in a watershed plan	
Site has 1 or 2 priority habitats (listed on next page) within 100 m points = 1	_
Site does not meet any of the criteria above points = 0	0
Rating of Value If score is: $2 = H$ $1 = M$ X $0 = L$ Record the rating on	the first nage

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

WDFW Priority Habitats

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

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wotland Type	Catagory
Wetland Type	Category
Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.	
SC 1.0. Estuarine wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
— The dominant water regime is tidal,	
— Vegetated, and	
— With a salinity greater than 0.5 ppt Yes –Go to SC 1.1 No [≠] Not an estuarine wetland	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area	
Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	Cat
Yes = Category I No - Go to SC 1.2	Cat. I
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
— The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less	
than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25)	Cat. I
— At least $\frac{3}{4}$ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-	
mowed grassland.	Cat. II
— The wetland has at least two of the following features: tidal channels, depressions with open water, or	
contiguous freshwater wetlands. Yes = Category I No = Category II	
SC 2.0. Wetlands of High Conservation Value (WHCV)	
SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High	
Conservation Value? Yes – Go to SC 2.2 No – Go to SC 2.3	Cat. I
SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
Yes = Category I No = Not a WHCV	
SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
Yes – Contact WNHP/WDNR and go to SC 2.4 (No) = Not a WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on	
their website? Yes = Category I No= Not a WHCV	
SC 3.0. Bogs	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? <i>Use the key</i>	
below. If you answer YES you will still need to rate the wetland based on its functions.	
SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or	
more of the first 32 in of the soil profile? Yes – Go to SC 3.3 (No)– Go to SC 3.2	
SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep	
over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or	
pond? Yes – Go to SC 3.3 (No)= Is not a bog	
SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30%	
cover of plant species listed in Table 4? Yes = Is a Category I bog No – Go to SC 3.4	
NOTE: If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the	
plant species in Table 4 are present, the wetland is a bog.	Cat. I
SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar,	
western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the	
species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy?	
Yes = Is a Category I bog No = Is not a bog	

Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer YES you will still need to rate the wetland based on its functions.</i>	l
 Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). 	
Yes = Category I No= Not a forested wetland for this section	Cat. I
SC 5.0. Wetlands in Coastal Lagoons	
Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
Yes – Go to SC 5.1 No No Not a wetland in a coastal lagoon	ı
 5C 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un- 	Cat. II
mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²) Yes = Category I No = Category II	l
SC 6.0. Interdunal Wetlands	
Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas:	1
 Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to SC 6.1 No = not an interdunal wetland for rating	Cat I
res do to se o.1 The line an interdunal wedand for fatting	ı
for 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No – Go to SC 6.2	Cat. II
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No – Go to SC 6.3 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?	Cat. III
Yes = Category III No = Category IV	Cat. IV

Wetland name or number <u>.</u>	F
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APPENDIX B1. WETLAND RATING FORM FIGURES.

- **B1 COWARDIN VEGETATION MAP**
- **B2 HYDROPERIOD MAP**
- **B3 MAP OF CONTRIBUTING BASINS**
- **B4 LAND USE INTENSITY MAP**
- **B5 WATER QUALITY ASSESSEMENT MAPS**
- B6 ECOLOGY 303(D) LISTED WATERS
- B7/8 TMDL'S FOR WRIA 28



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

CowardinVegetation
Lacamas Heights Elementary School
Camas, Washington



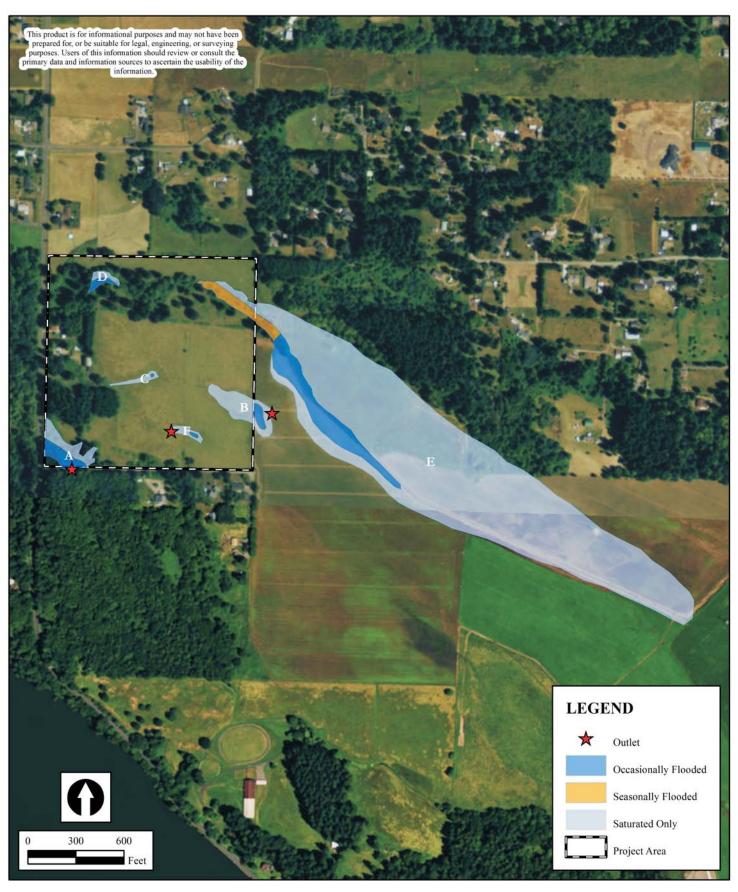
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Hydroperiods Map
Lacamas Heights Elementary School
Camas, Washington



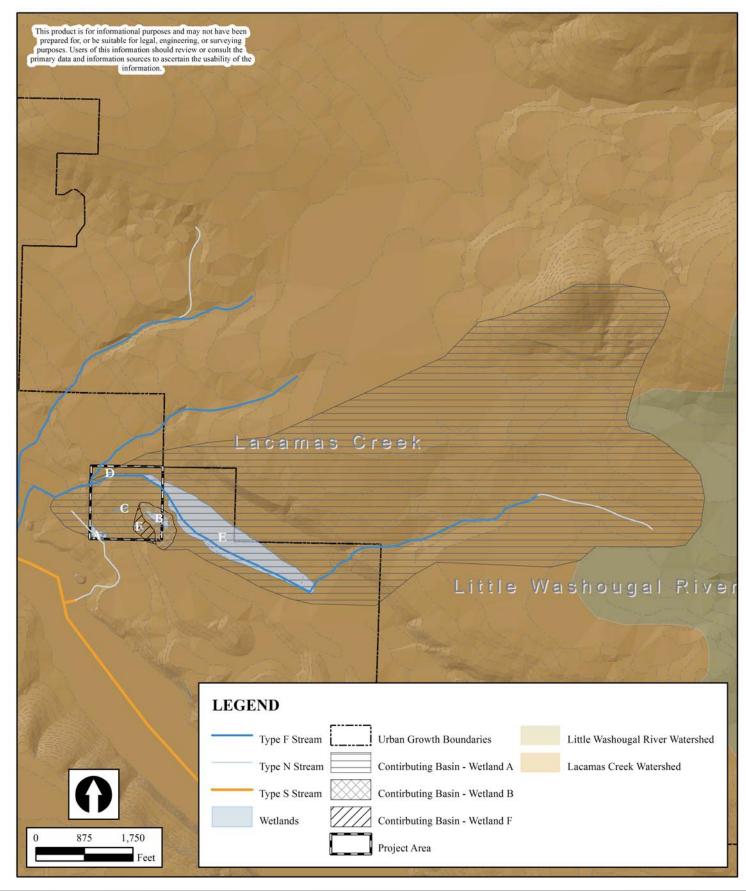
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

 $W_{\cdot}M_{\cdot, \tau}$

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination Map of Contributing Basin
Lacamas Heights Elementary School
Camas, Washington



PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016



APPLICANT: Camas School District 841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland
Delineation/Determination

Land Use Intensity Map
Lacamas Heights Elementary School
Camas, Washington



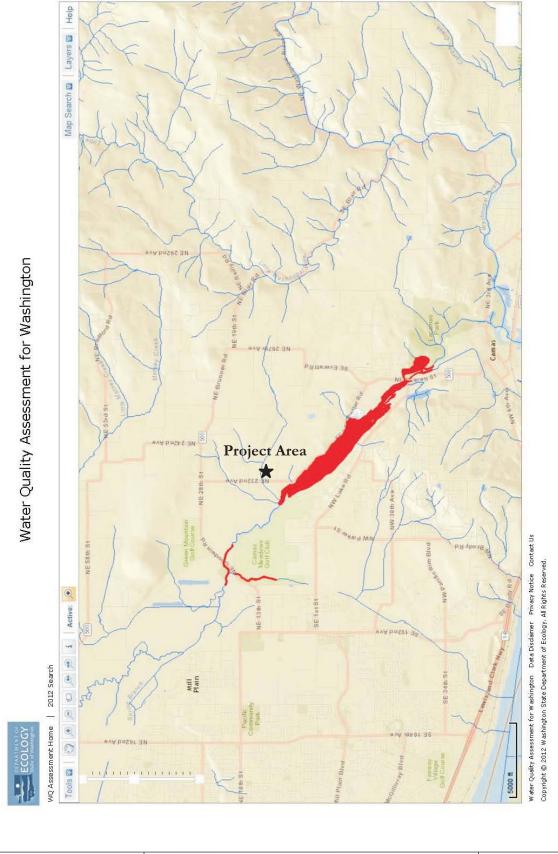
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016



1 of 1

3/24/2016 12:48 PM

Project:Lacamas Heights Elementary School

APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Water Quality Assessment Map Lacamas Heights Elementary School Camas, Washington

Company, Inc.
ENVIRONMENTAL SERVICES - GIS - HABITAT RESTORATION
8415 NB 8th Avenue, Vancouver, WA 98889 pt. 350-893-4555 fax: 350-859-8242

The **Resource**

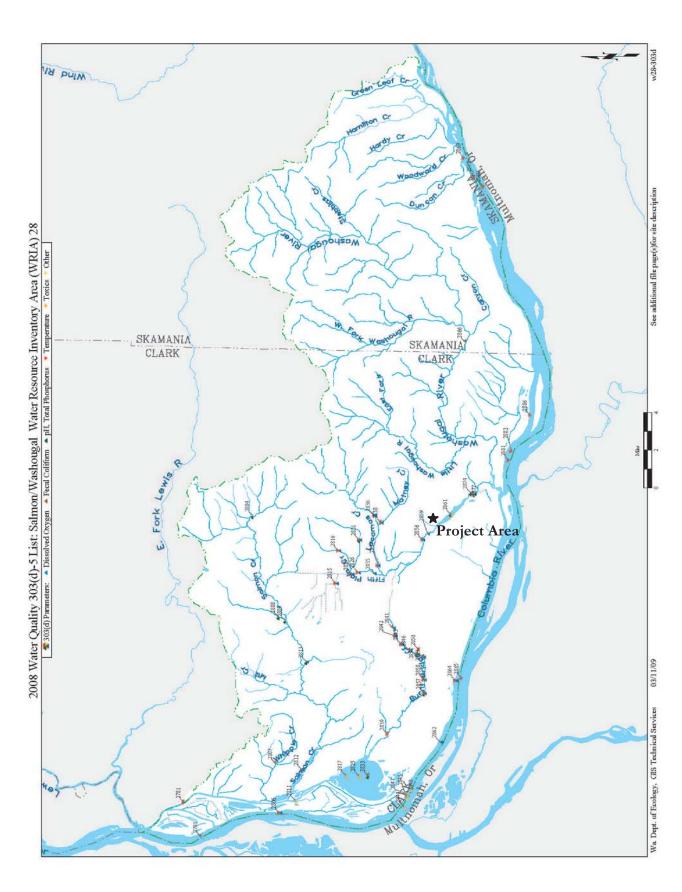
PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016 Figure B5



APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

Ecology 303(D) Listed Waters Lacamas Heights Elementary School Camas, Washington

The Resource Company, Inc.

ENVIRONMENTAL SERVICES - GIS - HABITAT RESTORATION
B416 HE BITAYERUS, VAN 50005975 500 593 4555 fax: 350 4599 5242

PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

Figure B6

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016

303(d) Catagory 5 Assessed Waters for WRIA 28

Map#	Listing	Waterbody	Parameter	Medium
2844	509972	COLUMBIA RIVER	Sediment Bioassay	(s)
2845	509973	COLUMBIA RIVER	PCB	(s)
2846	7840	BURNT BRIDGE CREEK	Dissolved Oxygen	(W)
2846	7858	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2847	509974	COLUMBIA RIVER	PCB	(s)
2848	509976	COLUMBIA RIVER	PCB	(s)
2850	46972	PETERSON DITCH	Fecal Coliform	(w)
2850	48661	PETERSON DITCH	Temperature	(w)
2851	7828	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2851	7843	BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2851	7851	BURNT BRIDGE CREEK	Temperature	(w)
2853	7827	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2853	7839	BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2853		BURNT BRIDGE CREEK	Temperature	(w)
2856		LACAMAS CREEK	Dissolved Oxygen	(w)
2856	7913	LACAMAS CREEK	Fecal Coliform	(w)
2856	7917	LACAMAS CREEK	Temperature	(w)
2857		BURNT BRIDGE CREEK	pH	(w)
2857		BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2857		BURNT BRIDGE CREEK	Temperature	(w)
2857		BURNT BRIDGE CREEK	Fecal Coliform	(w)
	46969	BURNT BRIDGE CREEK	Fecal Coliform	(w)
	47728	BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
	48686	BURNT BRIDGE CREEK	Temperature	(w)
2859		DWYER CREEK	Dissolved Oxygen	(w)
2861		LACAMAS LAKE	Total Phosphorus	(w)
	43465	LACAMAS LAKE	PCB	(t)
	49046	COLUMBIA RIVER	Dissolved Oxygen	(w)
	48933	COLUMBIA RIVER	Temperature	(W)
	49044	COLUMBIA RIVER	Dissolved Oxygen	(w)
	21540	COLUMBIA RIVER	Temperature	(w)
	16774	WASHOUGAL RIVER	Fecal Coliform	(w)
2869		COLUMBIA RIVER (BROUGHTON REACH)	Temperature	(w)
2874	- CONT	ROUND LAKE	pH	(w)
2874		ROUND LAKE	Dissolved Oxygen	(w)
2875		COLUMBIA RIVER (BROUGHTON REACH)	Temperature	(w)
2877		LACAMAS CREEK	Temperature	(w)
2877	0.0000000000000000000000000000000000000	LACAMAS CREEK	Dissolved Oxygen	(w)
2877		LACAMAS CREEK	pH .	(w)
2880		COLUMBIA RIVER (BROUGHTON REACH)	Temperature	(w)
	21539	COLUMBIA RIVER	Temperature	(w)
2882		COLUMBIA RIVER	Temperature	(w)
2886	6294	COLUMBIA RIVER (BROUGHTON REACH)	Temperature	(W)

Medium: water(w), tissue(t), sediment(s), other(o)

Page 2

Ecology, GIS Technical Services

Project:Lacamas Heights Elementary School

APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

TMDL's for WRIA 28 Lacamas Heights Elementary School

Camas, Washington The **Resource**

PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas Washington COUNTY: Clark County DATE: March 29, 2016

Company, Inc.
ENVIRONMENTAL SERVICES - GIS - HABITAT RESTORATION
8416 NE 8th Avenue, Vancouver, WA 98888 pt 360-593-4655 fax: 360-899-8242 Figure B7

303(d) Catagory 5 Assessed Waters for WRIA 28

Map#	Listing	Waterbody	Parameter	Medium
(C.)	40869	LAKE RIVER	Temperature	(W)
	40870	LAKE RIVER	Fecal Coliform	(W)
2791		COLUMBIA RIVER	Fecal Coliform	(w)
	22066	SALMON CREEK	pH	(w)
2806	48932	COLUMBIA RIVER	Temperature	(w)
2806	49048	COLUMBIA RIVER	Dissolved Oxygen	(w)
2807	22018	WHIPPLE CREEK	Fecal Coliform	(w)
2808	22067	WEAVER CREEK	pH	(w)
2809	22065	SALMON CREEK	pH	(w)
2811	53206	LAKE RIVER	2,3,7,8-TCDD	(t)
2811	53207	LAKE RIVER	4,4'-DDE	(t)
2811	53208	LAKE RIVER	Dieldrin	(t)
2811	53209	LAKE RIVER	PCB	(t)
2812	22047	SALMON CREEK	Temperature	(w)
	22055	SALMON CREEK	Dissolved Oxygen	(w)
2812	22063	SALMON CREEK	pH	(w)
	22053	CURTIN CREEK	Dissolved Oxygen	(w)
	22061	CURTIN CREEK	pH	(w)
2815		CHINA LATERAL	Dissolved Oxygen	(w)
2815		CHINA LATERAL	Temperature	(w)
2816		FIFTH PLAIN CREEK	Temperature	(w)
2816		FIFTH PLAIN CREEK	Dissolved Oxygen	(w)
	42172	VANCOUVER LAKE	PCB	(t)
	42187	VANCOUVER LAKE	4,4'-DDE	(t)
	42282	VANCOUVER LAKE	Toxaphene	(t)
	53204	VANCOUVER LAKE	2,3,7,8-TCDD	(t)
571750753	53205	VANCOUVER LAKE	Dieldrin	(t)
2826		FIFTH PLAIN CREEK	Temperature	(w)
2826 2827		FIFTH PLAIN CREEK	Dissolved Oxygen	(w)
2827		CHINA DITCH	Dissolved Oxygen	(w)
2831		CHINA DITCH	Temperature	(w)
2831		SHANGHAL CREEK	Temperature	(w)
2831	A TOTAL TO	SHANGHAI CREEK SHANGHAI CREEK	Dissolved Oxygen pH	(W)
2833		VANCOUVER LAKE	Total Phosphorus	(W)
2833		VANCOUVER LAKE	Fecal Coliform	(w)
2835		FIFTH PLAIN CREEK	Dissolved Oxygen	(w)
2836		LACAMAS CREEK	Temperature	(w)
2836		LACAMAS CREEK	Dissolved Oxygen	(w)
2837		LACAMAS CREEK	Temperature	(w)
2837		LACAMAS CREEK	Dissolved Oxygen	(w)
2838		MATNEY CREEK	Dissolved Oxygen	(w)
2838	7930	MATNEY CREEK	Temperature	(w)
2838	22016	MATNEY CREEK	Fecal Coliform	(w)
2839	7829	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2839	7837	BURNT BRIDGE CREEK	Temperature	(w)
2841	7830	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2841	7844	BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2842	7832	BURNT BRIDGE CREEK	Fecal Coliform	(w)
2842		BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2842	7855	BURNT BRIDGE CREEK	Temperature	(w)
2843	45236	BURNT BRIDGE CREEK	Fecal Coliform	(w)
	47731	BURNT BRIDGE CREEK	Dissolved Oxygen	(w)
2843	48689	BURNT BRIDGE CREEK	Temperature	(w)

Medium: water(w), tissue(t), sediment(s), other(o)

Page 1

Ecology, GIS Technical Services

Project:Lacamas Heights Elementary School

APPLICANT: Camas School District

841 NE 22nd Avenue Camas, WA 98607

PURPOSE: Revised Wetland Delineation/Determination

TMDL's for WRIA 28 Lacamas Heights Elementary School Camas, Washington

The Resource Company, Inc.

ENVIRONMENTAL SERVICES - 615 - HABITAT RESTORATION
8416 NE 8th Avenue, Vancouver, Van 588888 pt. 350 -893 4565 f ax: 350 -899 45242

PROPOSED ACTIVITIES IN:

Lacamas Creek Watershed

LEGAL: NW 1/4 of Section 27, T2N, R3E,

W.M.,

NEAR: Camas, Washington COUNTY: Clark County DATE: March 29, 2016