

Figure 1. Study area (green).

Findings

The subject parcel is located within the Lower Cedar River Drainage Basin of Watershed Resource Inventory Area (WRIA) 8 Cedar-Sammamish; Section 19, Township 23N, Range 06E. The parcel is within a rural area and is zoned Industrial. The subject property is boarded to the north by Renton Maple Valley Road SE; the east, south and west sides of the property are bordered by residential or undeveloped properties. The southern and eastern areas of the property are undeveloped, forested and are steeply sloped. The central part of the property includes several sheds, workshops and concrete stalls that are used to store mulch, gravel and other materials. The site was in-use at the time of our study.

Three streams and four wetlands were delineated within the subject parcel, and the Cedar River was delineated adjacent to the property with one associated wetland noted.

Wetland A

Wetland A is located within the southern side of the developed area. Ecology blocks abut a portion of the northern edge, and the eastern section has been ditched (Figure 2). Wetland A is a slope/depressional wetland with emergent and scrub-shrub Cowardin vegetation classes. Common vegetation within scrub-shrub dominated areas include red alder, willow species, and black cottonwood saplings in addition to the scrubs, Himalayan blackberry and salmonberry. Wetland areas dominated by emergent species include watercress, water purslane, creeping buttercup, grasses, piggyback, soft rush and small-fruited bulrush. Hydric soil determination is supported by the presence of Hydrogen Sulfide (hydric soil indicator A4) in addition to black soils (chroma 1) in which Redox Dark Surface (F6) is presumed due to organic matter masking redoximorphic features (RMF). Wetland hydrology was evident within Wetland A through a High Water Table (hydrology indicator A2), Saturation (A2) and Hydrogen Sulfide Odor (C1). Wetland A receives water from groundwater seeps and precipitation, resulting in the hydroperiods, permanent flooding and saturation. Wetland A is the headwater of Stream B.

Wetland B

Wetland B is a small slope/depressional wetland, located east of Wetland A at the base of the hillside (Figure 3). It contains emergent and forested Cowardin vegetation classes; common vegetation includes red alder, Himalayan blackberry, salmonberry, creeping buttercup, giant horsetail, sedge species and grasses. Hydric soils are black and presumed to meet Redox Dark Surface (F6), as organic material masks RMF. Wetland hydrology meets indicators High Water Table (A2) and Saturation (A3). Wetland B contains the seasonal flooding and saturation hydroperiods, receiving water the groundwater seeps and precipitation. Wetland B does not have an outlet.

Wetland C

Wetland C is a large wetland located at the base of a steep slope at the western edge of the subject property. Only a small portion of the wetland is located on-site; Stream B forms much of its western border. As such, the wetland rating was completed from areas observable from the subject parcel and publicly available aerials and online information. Wetland C is a slope/depressional/riverine wetland with scrub-shrub and forested Cowardin vegetation classes. Common vegetation includes black cottonwood, Pacific willow, and red alder in the canopy with red-osier dogwood, rose species, salmonberry, snowberry and Himalayan blackberry within the shrub understory layer, and water purslane, wooly sedge, giant horsetail and grasses within the emergent

understory layer. Hydric soil indicators were met with presence of Hydrogen Sulfide (A4) and presumed Redox Dark Surface (F6). Wetland hydrology is supported by a Hydrogen Sulfide Odor (C1), High Water Table (A2) and Saturation (A3). Water inputs into Wetland C are likely from groundwater seeps, precipitation and overbank flooding from streams. Hydroperiods observed include saturation, permanently flowing streams and seasonal flooding.

Right-of-Way (ROW) wetland

The ROW wetland is located at the base of a slope within the right-of-way along Renton Maple Valley Road SE (Figure 4). The ROW wetland is a slope/riverine wetland with an emergent Cowardin vegetation class. Dominant vegetation includes several species of grasses and herbaceous vegetation in addition to some Himalayan blackberry. At the time of the visit, soils were saturated to the surface. The section of the wetland that is adjacent to the road has been ditched and connects to Stream C just above the culvert.

Off-site wetland (North of SR-169)

The off-site, riverine wetland is located just below the Cedar River Trail and above the OHWM of Cedar River (Figure 5). It has emergent and forested Cowardin vegetation classes; common vegetation observed within the wetland includes red alder, salmonberry, Himalayan blackberry, reed canarygrass, and creeping buttercup. This wetland mainly receives water from Stream C and precipitation; at the time of the visit, soils were saturated and seasonal flooding was evident.

Non-wetland areas

Non-wetland areas within the study area consist mostly of developed and forested areas. The forested areas are located on steep slopes and contain vegetation commonly found in upland habitats, such as Douglas-fir, western red cedar, big-leaf maple, swordfern, salmonberry and trailing blackberry. Sampled soils were generally a chroma of 2 with no redoximorphic features. Non-wetland soils were commonly dry at the time of our fieldwork. Wetland soils and hydrology were not present within these areas.

Marginal non-wetland area

A marginal wetland area was observed within the subject parcel. This area is located directly abutting foundations of sheds north of Wetland A. At the time of the visit, excavated depressions along the foundation contained ponded water and were populated with several weedy plant species, such as reed canarygrass, soft rush and Canada thistle. This area was not connected via surface nor shallow groundwater to Wetland A or any stream and was small in size, approximately 50 square feet total. The

marginal area is in industrial use and is generally compacted. This area is presumed to contain perched water not associated with a high water table.

Stream A

Stream A is a seasonally flowing stream located within the southwest section of the subject property. It generally flows north through the study area and converges with Stream B near the southwestern corner of the developed area. It has a cobble, gravel and silt substrate and is approximately four to eight feet wide. The channel gradient is approximately 20 percent. FPARS maps Stream A as a non-fish bearing stream.

Stream B

Stream B's headwater is Wetland A and flows west then north after its confluence with Stream A. Near the property's western boundary, Stream B acts as the eastern edge of Wetland C, then splits, one section turning west into Wetland C and the other section continue north terminating in pond that is part of Wetland C. A portion of the right bank has been armored with Ecology Blocks. The stream has a silt substrate and is approximately six to ten feet wide. FPARS maps Stream B as a non-fish bearing stream. Stream B is presumed to drain to the Cedar River through a culvert under Renton Maple Valley Road SE.

Stream C

Stream C is seasonally flowing stream located with the northeast corner of the property. Near the northern property line, it flows roughly parallel to the road, then veers north under a culvert and empties into the off-site wetland where it loses stream definition. Stream bed and bank briefly re-appear at the wetland's outlet before it flows into a second culvert, emptying into the Cedar River. Stream C, within the subject property, is approximately two to four feet wide and has a gravel and sand substrate. Due to seasonal low flow conditions and a gradient of approximate 25 percent approaching the Cedar River, Stream C presumed non-fish bearing. It is not mapped by King County iMap or FPARS.

Cedar River

The Cedar River is located north of the subject parcel. A bend in the river runs parallel to Renton Maple Valley Road SE for approximately 430 feet and is located approximately 150 feet from the subject property's northern boundary. These measurements were estimated using the 2015 aerial from King County iMap. The Cedar River is a documented salmonid stream and a Shoreline of the State.

Local Regulations

Critical areas in unincorporated King County are regulated by the County's Critical Areas Regulations [King County Code (KCC) Chapter 21A.24]. Shorelines are regulated by the Shoreline Master Program (SMP) in KCC 21A.25. Shoreline regulations are discussed in the attached memorandum.

According to the code, wetlands are rated as one of four categories based on the Rating System. Table 1 summarizes wetland rating scores and buffers. Wetland buffer widths in King County are based on a combination of the wetland category, the habitat score, presence of the wetland within the Urban Growth Area (UGA), and the intensity of the site's land use. The standard buffer widths in Table 1 are based upon the fact that the site is located outside of the County's UGA and that the proposed use is considered a high land use.

Table 1. Summary of wetland rating scores and buffer widths of wetlands within the subject parcel.

	HGM¹ Rating Classification	Habitat Score	Total	Category	Standard Buffer width
Wetland A	Depressional	15	29	IV	50 feet
Wetland B	Depressional	17	47	111	80 feet
Wetland C	Depressional	22	44	III	150 feet
ROW Wetland	Riverine	15	53	II	100 feet

¹ HGM = hydrogeomorphic classification

Aquatic area (stream) buffers are determined based on the classification of the aquatic area and whether or not they are located within the UGA. Type S waters are aquatic areas inventoried as "shorelines of the state". Type N waters are aquatic areas or segments that are physically connected to Type S or F waters. Table 2 summarizes aquatic area types and buffer widths for streams outside of the UGA.

Table 2. Summary of stream types and buffer widths.

	Water Type	Standard Buffer Width
Stream A	N	65 feet

Stream B	N	65 feet
Stream C	N	65 feet
Cedar River	S	165 feet

King County requires a 15-foot building setback from the edges of all critical area buffers. Building setbacks may contain landscaping, uncovered decks, building overhangs (if no more than 18 inches into the setback area), impervious ground surfaces with specified drainage provisions, and utility service connections (KCC 21A.24.200).

Allowed Uses within Critical Area Buffers

King County allows specific alterations to occur within critical area buffers, including aquatic areas and wetlands. Specifically, pursuant to KCC 21A.24.045.C, in some cases, driveways or private access roads may be newly constructed or maintained; existing culverts and bridges may be repaired, replaced or expanded; and existing wells and sewage disposal systems may be repaired. Furthermore, existing structures within critical area buffers may be expanded or replaced pursuant to KCC 21A.24.045.D.8, so long as the new portion of structure is located upon another portion of an existing impervious surface, the structure is not located closer to the critical area, and the total amount of impervious surface within the buffer is not expanded.

While an above described use may be allowed, all allowed alterations would still be subject to the avoidance, minimization and mitigation requirements of KCC 21A.24.125. The buffer alterations must also comply with the specific development standards for each critical area (KCC 21A.24.365 – aquatic areas, KCC 21A.24.335 – wetlands), including timing restrictions for grading, soil amendment for pervious surfaces, and the placement of structures to avoid the creation of hazard trees.

Mitigation requirements would also apply (KCC 21A.25.380 – aquatic areas, KCC 21A.24.340 – wetlands), including providing equivalent or greater critical area functions, an adequate mitigation ratio to compensate for adverse impacts, and adherence to a comprehensive mitigation monitoring program.

Critical Area Buffer Reduction

Within aquatic area buffers, KCC 21A.24.358.E.1.b allows the County to modify buffer widths (at its own discretion) if it can be demonstrated that the buffer cannot provide certain functions because of soils, geology or topography, provided that established buffers protect the remaining ecological functions that the buffer can provide.

Wetland and aquatic area buffers outside the UGA may also be modified through buffer averaging. Buffer averaging may be allowed if the total buffer area is equivalent to the area before averaging, the averaged buffer is contiguous with the standard buffer, and "the ecological structure and function of the buffer after averaging is equivalent to or greater than the structure and function before averaging" (KCC 21A.24.325.C – wetlands and KCC 21A.24.358.E.1 – aquatic areas). In some circumstances, buffer averaging may be accompanied by buffer enhancement in order to balance ecological functions. There is no maximum reduction allowed through the buffer averaging process.

King County also allows for buffers associated with wetlands and aquatic areas to end at the edge of a legally established roadway (KCC 21A.24.325.D.4 – wetlands and KCC 21A.24.358.E.4 – aquatic areas). This method of buffer modification is viable if the part of the standard buffer on the other side of the roadway provides insignificant biological or hydrological function in relation to the portion of the buffer adjacent to the critical area.

Buffer modifications, approved through any scenario discussed above, require compliance with the mitigation and monitoring requirements of KCC 21A.24.130, KCC 21A.24.340, and KCC 21A.24.380.

If buffer reduction and/or buffer averaging are not feasible due to site constraints, application for a critical area alteration exception may be allowed. Under an alteration exception, development can be placed in a wetland/aquatic area buffer provided specific criteria are complied with. This includes demonstration that the project is the minimum necessary, there is no feasible alternative with less impact to the critical area, and there will be no unreasonable threat to the public health, safety, or welfare.

State and Federal Regulations

Wetlands are also regulated by the Corps under Section 404 of the Clean Water Act. Any proposed filling or other direct impacts to Waters of the U.S., including wetlands (except isolated wetlands), would require notification and permits from the Corps. Wetlands A and C, in addition to the ROW and off-site wetland would not be considered isolated. Wetland B may be considered isolated due to its lack of surface waters connections to the Cedar River; however, a formal isolated status inquiry can be requested from the Corps through the Jurisdictional Determination process. Note that a new Clean Water Rule for wetlands and other Waters of the U.S. went into effect in August 2015; however, the rule was recently "stayed" nationwide by the 6th Circuit Court due to pending litigation. Therefore, the prior rule is in effect until further notice.

Federally permitted actions that could affect endangered species may also require a biological assessment study and consultation with the U.S. Fish and Wildlife Service and/or the National Marine Fisheries Service. Application for Corps permits may also require an individual 401 Water Quality Certification and Coastal Zone Management Consistency determination from Ecology and a cultural resource study in accordance with Section 106 of the National Historic Preservation Act.

In general, neither the Corps nor Ecology regulates wetland buffers, unless direct impacts are proposed. When direct impacts are proposed, mitigated wetlands may be required to employ buffers based on Corps and Ecology joint regulatory guidance.

Disclaimer

The information contained in this letter or report is based on the application of technical guidelines currently accepted as the best available science and in conjunction with the manuals and criteria outlined in the methods section. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available to us at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, State and Federal regulatory authorities. No other warranty, expressed or implied, is made.

Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

Anna Hoenig

A. Meng

Nell Lind

Ecologist

Nell Lund, PWS

Ecologist

Enclosures

Photographs



Figure 2. Eastern side of Wetland A, facing west. (1/10/2017)



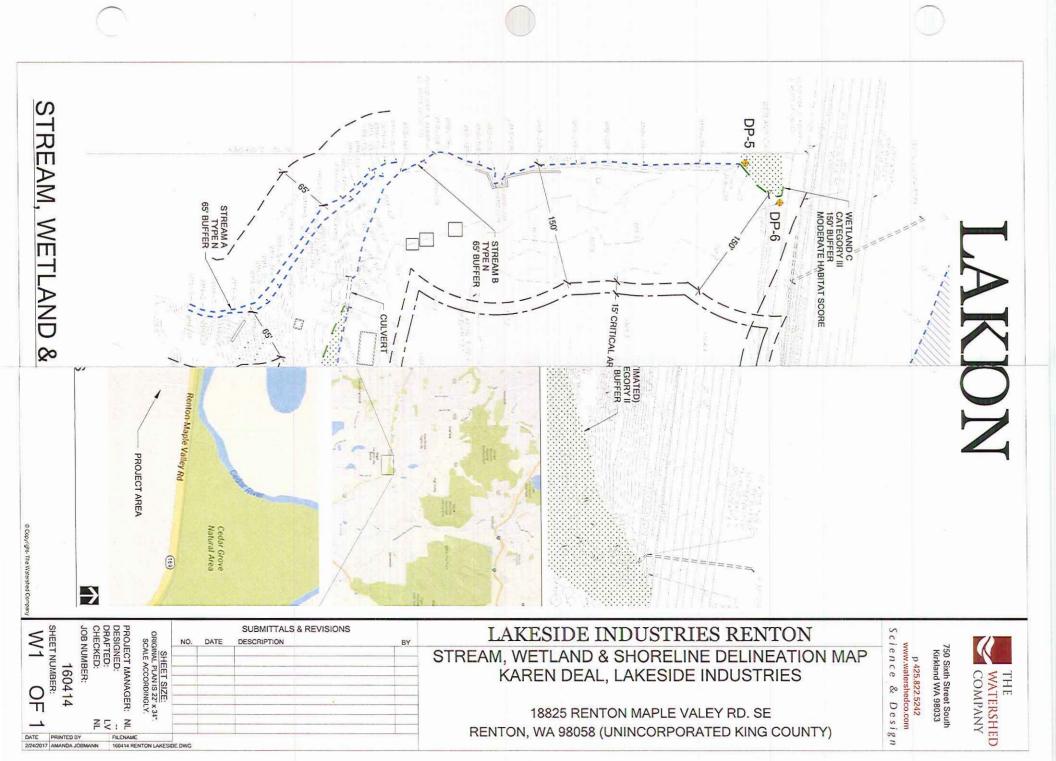
Figure 3. Wetland B. (1/10/2017)



Figure 4. ROW wetland. (1/12/2017)



Figure 5. Off-site wetland, north of Renton Maple Valley Road SE. (1/12/2017)





Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

DP- 1

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Project Site:	Lakeside - 18825 Rer	stan Manle	Valley S	E	Sampling Date:	1/10/2017		
Applicant/Owner:	Lakeside Industries,				Sampling Point:			
Investigator:	Nell Lund, Anna Hoe		March De	, ui	City/County:	Renton		
Sect., Township, Range:	S 19 T 23N	_)6E		State:	WA		
Landform (hillslope, terrace	e, etc): berm			Slope (%): <5	Local relief (conca	ave, convex, none):	convex	
Subregion (LRR): A	<u></u>			Lat:	Long:		Datum:	
Soil Map Unit Name: Urb	en land				NWI classification	none		
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Are "Normal Circumstance		ins unic or y		∐ Yes ☐ No	(II IIO, explain III I	smarks.j		
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Wedand Hydrology Fresen	[r 165	· ·	•••					
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4.					Species Across A		5	(8)
4.		5	= Total C	Cover	Percent of Domin	ant Species		
	_				that are OBL, FAC		100	(A/B)
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4.					FACW species		x 2 =	
5.					FAC species		x 3 =	
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			_		UPL species		x 5 =	
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1. Phalaris arundin		80		es FACW				
2. Ranunculus repe	ens	60	Ye	es FACW	Prevalence t	ndex = 8 / A =		
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8-12	10YR 2/2	100					Gravelly sandy loam	cobbles
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**			unless otherwise noted.)			rs for Probl	ematic Hydric Soils³	
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☐ Black Histi	c (A3)	□ t	Loamy Mucky Mineral (F1) (e	xcept MLRA	1) 🗌 Olh	er (explain ir	remarks)	
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☐ Depleted B	elow Dark Surface (A11	i) 🗌 (Depleted Matrix (F3)					
☐ Thick Dark	Surface (A12)	□ F	Redox Dark Surface (F6)				hytic vegetation and wetlan	d hydrology must
Sandy Mu	ky Mineral (S1)		Depleted Dark Surface (F7)		be prese	nt, unless di	sturbed or problematic	
•	yed Matrix (S4)	F	Redox Depressions (F8)					
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	r Table (A2)		Vater-Stained Leaves (excep		4A & 4B) (B9)	☐ Drair	nage Patterns (B10)	
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Saturation Pres (includes capillate)		No.⊠	☑ Depth (in):			1		
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D								
Remarks:								



Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

UP-2

(management .		
Project Site:	Lakeside - 1882	5 Renton Ma	anle Valley	/ SE		Sampling Date:	1/10/2017		
Applicant/Owner:	Lakeside Indust					Sampling Point			
Investigator:	Nell Lund, Anna					City/County:	Renton		
Sect., Township, Range:		23N R	06E			State:	WA		
Landform (hillslope, terrace,				Slone	e (%): 5		ave, convex, none):	concave	
ļ	eto). Gitori			-	G (70). G		ave, convex, none).	-	
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Are climatic/hydrologic condi	tions on the site typic	al for this time	of year?	⊠ Yes	. □ No	(If no, explain in r	emarks.)		
Are "Normal Circumstances"	• •		•	☐ Yes	i □ No				
Are Vegetation□, Soil □, or	•	antiv disturbed	17						
Are Vegetation□, Soil □, or		•				(If needed, explain	n any answers in Rei	marks.)	
SUMMARY OF FINDING	S – Attach site m	ap showing	sampling	point lo	cations, trans	ects, important	features, etc.		
	10	Yes 🏻	No 🗆]					
Hydrophytic Vegetation Pres	ent?								
Hydric Soils Present?		Yes 🛛	No 🗀	ls the	e Sampling Poi	nt within a Wetland	i? Yes 🔀	No	
Wetland Hydrology Present?		Yes 🛛	No 🗆]	. –		<u>u</u>	4	
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VEGETATION – Use sci	entific names of p	lants.							
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						that are OBL, FA		100	(A/B)
Sapling/Shrub Stratum (Plo	t size: 2m diam \								_ (/VD)
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						UPL species		x5=	
Herb Stratum (Plot size: 1m	diam.)					Column totals	(A)	(B)	
1. Phalaris arundina	cea	60		Yes	FACW		<u> </u>		
2. Ranunculus repen		20		No	FAC	Prevalence i	ndex = B / A =		
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9.						☐ Wetland No	on-Vascular Plants *		i
10.						☐ Problemation	: Hydrophytic Vegeta	ation * (explain)	
11.									
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% Bare Ground in Herb Strate	<u>am:</u>								
Remarks:									

SOIL							Sampling Point -	– DP-2
Profile Desc	rintion: (Describe to the o	denth nee	ded to document the in	idicator or confir	m the absence o	of indicators	s.)	
	Matrix	aopai noo	1					····· I···
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0-15	10YR 2/1	100					Loamy sand	mixed in
					Loamy sand Mimi Coated Sand Grains 2Loc: PL=Pore Lining, M=Matrix Indicators for Problematic Hydric Soils³ 2cm Muck (A10) Red Parent Material (TF2) Other (explain in remarks) 3 Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and wetland hydrophytic vegetation and wetland hydrophytic vegetation.			
						1		
Type: C=Co	ncentration D=Depletion F	3M≈Redu	ed Matrix CS=Covered	or Coated Sand G	rains 2 oc. Pl	.=Pore Linin	ıa. M=Matrix	
13po. 0-00	neer auton, o copietion, i	·m read	oo mana, oo oo a				J,	
Hydric Soil I	ndicators: (Applicable to	all LRRs,	unless otherwise note	d.)	Indicato	rs for Prob	lematic Hydric Soils³	
☐ Histosof	(A1)		Sandy Redox (S5)		☐ 2cn	1 Muck (A10)	
☐ Histic Ep	ipedon (A2)		Stripped Matrix (S6)		☐ Red	l Parent Mat	terial (TF2)	
☐ Black His	stic (A3)		Loamy Mucky Mineral (I	F1) (except MLRA	. 1) 🗵 Oth	er (explain i	n remarks)	
	n Sulfide (A4)		Loamy Gleyed Matrix (F	(2)				
□ Depleted	Below Dark Surface (A11)		Depleted Matrix (F3)					
☐ Thick Da	rk Surface (A12)		Redox Dark Surface (F6	3)				tland hydrology must
☐ Sandy M	ucky Mineral (S1)		Depleted Dark Surface	(F7)	be prese	ent, unless d	isturbed or problematic	
☐ Sandy GI	eyed Matrix (S4)		Redox Depressions (F8)				
	iver (if present):						_	_
Type:					Hydric soll	present?	Yes 🔀	No
Depth (inches	s):							
Remarks:	OM masking redox					***		
, tomanto.	Oli masking redex							
YDROLOG'	Υ							
Watland Live	rology Indicators:							
	cators (minimum of one rec	nuired: che	eck all that apply):			Secondary	Indicators (2 or more req	ruired):
•	water (A1)		Sparsely Vegetated Con	cave Surface (88)			er-Stained Leaves (B9) (
	ter Table (A2)		Water-Stained Leaves (e			☐ Drai	nage Patterns (810)	
	• •		Salt Crust (B11)		, , , ,		Season Water Table (C2)
☐ Water M	• •		Aquatic Invertebrates (B	13)		•	ration Visible on Aerial Ir	•
	t Deposits (82)		Hydrogen Sulfide Odor (•			morphic Position (D2)	
	osits (B3)		Oxidized Rhizospheres a		(C3)		llow Aquitard (D3)	
•	• •		Presence of Reduced Iro		(00)		-Neutral Test (D5)	
-	t or Crust (B4)			• ,			ed Ant Mounds (D6) (LR	DA)
	osits (B5)		Recent Iron Reduction in	, ,				K A)
	Soil Cracks (B6)		Stunted or Stressed Plar			☐ Fros	t-Heave Hummocks	
☐ Inundation (B7)	n Visible on Aerial Imagen		Other (explain in remarks	s)				
(07)								
Field Observ	ations							
Surface Wate	r Present? Yes	No	Depth (in):					
Water Table F	,		☐ Depth (in):	4" BGS	Wetland Hydro	inav Broom	nt? Yes 🔀	No \square
Saturation Pro	.00 23	No		2" BGS	wettand nytho	logy riesei	163	140
(includes capi		140						
•								
Describe Rec	orded Data (stream gauge,	monitorin	g well, aerial photos, pre	vious inspections)	if available:			
Remarks:								



Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

DP-	3

Project Site:	Lakeside - 18825	Renton Ma	ole Vallev S	E		Sampling Date:	1/10/2017		
Applicant/Owner:	Lakeside Industr					Sampling Point:	DP- 3		
Investigator:	Nell Lund, Anna					City/County:	Renton		
Sect., Township, Range:	S 19 T	23N R	06E			State:	WA		
Landform (hillstope, terrace	, etc): hillslope			Slope (%): >10	Local relief (concav	e, convex, none):	none	
Subregion (LRR): A				Lat:		Long:		Datum:	
Soil Map Unit Name: Urb	an land					NWI classification:	none		
Are climatic/hydrologic cond		al for this time	of vear? 0	⊠ Yes	☐ No	(If no, explain in ren	narks.)		
Are "Normal Circumstances			•	Yes	☐ No	` '	,		
Are Vegetation□, Soil □, o	•	antly disturbed	?	_	_				
Are Vegetation□, Soil □, o						(If needed, explain a	any answers in Re	emarks.)	
SUMMARY OF FINDING			sampling oc	int locati	ons trans	sects, important fe	atures, etc.		
		6.3	No 🗆		, , , , , , , , , , , , , , , , , , , ,				
Hydrophytic Vegetation Pre	sent?							_	
Hydric Soils Present?		Yes ⊠	No 🗆	Is the Sa	mpling Poi	nt within a Wetland?	Yes] N	o [
Wetland Hydrology Present	?	Yes 🗵	No 🗌						
Remarks: Wetland	В								
VEGETATION - Use so	ientific names of p	lants.							
Tree Stratum (Plot size: 5n	n diam.)	Absolute	% Domina	ent	Indicator	Dominance Tes	t Worksheet		
		Cover	Species	\$?	Status				
1. Alnus rubra		35	Y	es	FAC	Number of Domina that are OBL, FACV		4	
2.									(A)
3.						Total Number of Do Species Across All		4	(D)
4.		35	= Total C	over		Percent of Dominar			(B)
						that are OBL, FACV		100	(A/B)
Sapling/Shrub Stratum (Pl	ot size: 3m diam.)						-		(AVD)
1. Rubus armeniaci		25	Υ.	es	FAC	Prevalence Inde	x Worksheet		
2.						Total % (Multi	oly by
3.						OBL species		x 1 =	
4.						FACW species		x 2 =	
5.						FAC species		x 3 =	
		25	= Total C	over		FACU species		x 4 =	
						UPL species		x 5 =	
Herb Stratum (Plot size: 1n						Column totals	(A)	(B)	
1. Ranunculus repe		10		98	FACW	1	. 544		
2. Equisetum telma	teia	25	Ye	· · · · · · · · · · · · · · · · · · ·	FACW	Prevalence In	dex = B / A =		
3. Holcus lanatus		<u>2</u> 	N		FAC FCW	Hydrophytic Veg	notation Indian	fore	
4. Phalaris arundina	icea	<u> </u>	N	Ü	LCAA	☐ Dominance to		1015	
5.						Prevalence to			
6.						, –	al Adaptations * (p	rauida aunnadi	na
7.						d	ks or on a separa		ny
8.						1 -	•	•	
9.						 	-Vascular Plants *		
10.						☐ Problematic l	Hydrophytic Vegel	tation (explair	')
11,		42	= Total C	over		* Indicators of hydric			st be
Woody Vine Stratum (Plot	size· \					present, unless dist	urbea or problems	auc	
1.									
2.						Hydrophytic Veg	getation	. 🔽	
			= Total C	over		Present?		is 🔀 i	No []

% Bare Ground in Herb Stra	tum:								
Remarks:									

SOIL							Sampli	ing Point – DP	-3	
Profile Des	scription: (Describe to	the depth ne	eded to document the	e indicator or confirm	the absence o	of indicators				
Depth	Mat	rix		Redox Feature	3S				T	
(inches)	Color (moist)	%	Colar (mois	st) %	Type ¹	Loc2	T	Texture	Re	emarks
0-3	10YR 2/2	100					Gravelly	clay loam		
3-8	10YR 2/1	100					Gravelly	loamy sand		
8-14	7.5YR 2.5/1	100					Loamy n	nulch		
¹Type: C=C	oncentration, D=Deple	tion, RM=Redi	uced Matrix, CS=Covere	ed or Coated Sand Gra	ains ² Loc: PL	_=Pore Lining	g, M=Matrix			
☐ Histoso	ol (A1)			oted.)	☐ 2cm	Muck (A10)	•	ric Soils³		
	pipedon (A2)					Parent Mate				
☐ Black H	, ,			al (F1) (except MLRA 1		er (explain in	ı remarks)			
	en Sulfide (A4)									
	ed Below Dark Surface ((A11)	. , .							
	ark Surface (A12)			` '	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic					
☐ Sandy N	Mucky Mineral (S1)		Depleted Dark Surfac	ce (F7)	be prese	nt, unless a	sturbed or pr	roblematic		
☐ Sandy (Gleyed Matrix (S4)	. \square	Redox Depressions (I	F8)						
Restrictive I	Layer (if present):									
Туре:					Hydric soil	present?	Yes	\boxtimes	No	
Depth (inch	es):									
Remarks:	OM masking red	OX								
HYDROLOG	ЭY									
Wetland Hy	drology Indicators:	ne required: cl	heck all that apply):			Secondary i	Indicators (2	or more required	····	
	e water (A1)		Sparsely Vegetated Co	oncave Surface (B8)				aves (B9) (MLRA	-	IA & 4B)
	/ater Table (A2)			s (except MLRA 1, 2, 4	A & 4B) (B9)		nage Patterns	. , ,		
	tion (A3)		Salt Crust (B11)	, (4,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Season Wate			
	Marks (B1)		Aquatic Invertebrates ((B13)		•		on Aerial Imagei	rv (C9)	
	ent Deposits (B2)	Ö	Hydrogen Sulfide Odo	•			norphic Posit	-	1 (,	
	eposits (B3)	ā	, .	es along Living Roots (C	33)		low Aquitard	, ,		
	fat or Crust (84)	ā	Presence of Reduced		,	_	Neutral Test			
_	posits (B5)		Recent Iron Reduction	` '				ds (D6) (LRR A)		
	Soil Cracks (B6)		Stunted or Stressed Pl				-Heave Hum			
	tion Visible on Aerial Im		Other (explain in rema	, , , , ,		<u> </u>		1110		
Field Obser	vations		WHITEHOLDER							
Surface Wat	ter Present? Yes	□ No								
Water Table	Present? Yes	⊠ No	☐ Depth (in):	4" BGS 🐰	Netland Hydrol	loav Presen	ıt? Ye	ıs 🖂	No	
Saturation P (includes cap	Present? Yes pillary fringe)	⊠ No	Depth (in):	surface					-	L
Describe Re	corded Data (stream gr	auge, monitorii	ing well, aerial photos, p	previous inspections), if	available:	Parameter tool v				
Remarks:				1.00						



Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

	Pin.	
1)	Ρ-	4
$\boldsymbol{\mathcal{L}}$		-

Project Site: Lakeside - 18	3825 Renton Maple	Valley SE		Sampling Date:	1/10/2017	7		
Applicant/Owner: Lakeside Ind	ustries, Inc., Attn:			Sampling Point:				
Investigator: Nell Lund, Ar				City/County:	Renton			
Sect., Township, Range: S 19		06E		State:	WA			
Landform (hillslope, terrace, etc): terrace	1 2014 11 0		lope (%): <5	Local relief (conca	2002000	e): none		
					ve, convex, non			
Subregion (LRR): A		L	at:	Long:		Datum:		
Soil Map Unit Name: Urban land				NWI classification:	none			
Are climatic/hydrologic conditions on the site t	voical for this time of v	ear?	Yes 🗆 No	(If no, explain in re	marks.)			
Are "Normal Circumstances" present on the si	CONTRACTOR OF THE CONTRACTOR OF THE CONTRACTOR			Asserted and the second and the	 			
Are Vegetation□, Soil □, or Hydrology □ sign								
Are Vegetation□, Soil □, or Hydrology □ nat				(If needed, explain	any answers in	Remarks.)		
				William Page Annual Company				
SUMMARY OF FINDINGS – Attach site	e map showing sar	mpling point	locations, tran	sects, important f	eatures, etc.			
Lludeanhutia Vagatatian Descent?	Yes 🛛 N	Vo □						
Hydrophytic Vegetation Present?						-		-
Hydric Soils Present?			the Sampling Po	int within a Wetland	? Yes		No	X
Wetland Hydrology Present?	Yes 🗌 N	√ 0				-		
Remarks:					-			
remarks.								
VEGETATION – Use scientific names	of plants							
VEGETATION - Ose scientific flames	or plants.	70		T				_
Free Stratum (Plot size: 5m diam.)	Absolute %	Dominant	Indicator	Dominance Tes	at Markahaat			
Tree Stratum (Flot size. 3m diam.)	Cover	Species?	Status	Dominance res	st worksheet			
Alnus rubra	30	Yes	FAC	Number of Domina	ant Species			
2.				that are OBL, FAC	W, or FAC:	3		(A
).				Total Number of D	ominant			1. ,
				Species Across Al		3		(B)
I.	30	= Total Cove	•	Species Across Al	l Strata:	3		(B)
	30	= Total Cove			l Strata: int Species	100		
	30	= Total Cove		Species Across Al Percent of Domina	l Strata: int Species	Constitution Cons		0.000
i. Sapling/Shrub Stratum (Plot size: 3m diam.)		-		Species Across Al Percent of Domina that are OBL, FAC	l Strata: ant Species W, or FAC:	100		
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus	30	= Total Cove 	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Index	I Strata: ant Species aw, or FAC: ex Workshee	100		(A
s. Sapling/Shrub Stratum (Plot size: 3m diam.) . Rubus armeniacus		-		Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total %	l Strata: ant Species W, or FAC:	100	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S		-		Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species	I Strata: ant Species aw, or FAC: ex Workshee	100	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S		-		Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species	I Strata: ant Species aw, or FAC: ex Workshee	100	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S	10	Yes	FAC	Prevalence Ind Total % OBL species FACW species FAC species	I Strata: ant Species aw, or FAC: ex Workshee	100 x 1 = x 2 = x 3 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S		-	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species FACU species	I Strata: ant Species aw, or FAC: ex Workshee	100 x 1 = x 2 = x 3 = x 4 =	ultiply by	(A
s. Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S. S. S. S.	10	Yes	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species UPL species UPL species	I Strata: ant Species ant Spec	100 x 1 = x 2 = x 3 = x 4 = x 5 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus S.	10	Yes	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species FACU species	I Strata: ant Species aw, or FAC: ex Workshee	100 x 1 = x 2 = x 3 = x 4 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Herb Stratum (Plot size: 1m diam.) Phalaris arundinacea	10	Yes = Total Cover	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species UPL species Column totals	I Strata: ant Species ant Spec	100 x 1 = x 2 = x 3 = x 4 = x 5 = (B)	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species UPL species Column totals	I Strata: ant Species ant Spec	100 x 1 = x 2 = x 3 = x 4 = x 5 = (B)	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Prevalence Ind Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species FACW species UPL species	I Strata: ant Species ant Spec	100 X 1 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Prevalence Ind Total % OBL species FACW species FACU species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACU species UPL species UPL species The species UPL species UPL species UPL species	I Strata: ant Species ant Spec	100 X 1 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Prevalence Ind Total % OBL species FAC species FAC species FACU species UPL species Column totals Prevalence In Hydrophytic Ve	I Strata: ant Species ant Spec	100 X 1 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL species UPL species UPL species UPL species Obligation Obligation Dominance	I Strata: ant Species ant Spec	100 X 1 =	ultiply by	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL species	I Strata: ant Species ant Spec	100 x 1 = x 2 = x 4 =		(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL species	I Strata: ant Species ant Spe	100 x 1 = x 2 = x 3 =		(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL species	I Strata: ant Species EW, or FAC: ex Workshee Cover of (A) (A) dex = B / A = getation Indi test is > 50% test is ≤ 3.0 * al Adaptations *	100 x 1 = x 2 = x 3 =		(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens	10	Yes = Total Cover	FAC	Species Across AI Percent of Dominathat are OBL, FAC Prevalence Ind	I Strata: ant Species ant Spec	100 X 1 =	orting	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Sapling	10	Yes = Total Cover	FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL spe	I Strata: ant Species ant Spe	100 X 1 =	orting	(A
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens		Yes = Total Cover Yes No	FACW FAC	Species Across Al Percent of Dominathat are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species UPL species	I Strata: ant Species ant Spec	100 x 1 = x 2 = x 3 =	orting	(А
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Sapling	10	Yes = Total Cover	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL spe	I Strata: ant Species ant Spe	100 X 1 =	orting	(A <u>x</u>
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Sapling		Yes = Total Cover Yes No	FACW FAC	Species Across Al Percent of Dominathat are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species UPL species	I Strata: ant Species ant Adaptation ant Species ant Adaptations ant Adaptati	100 X 1 =	orting	(A <u>y</u>
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Company of the size: 1m diam.)		Yes = Total Cover Yes No	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence Ind Total % OBL species FACW species FACW species UPL spe	I Strata: ant Species ant Adaptation ant Species ant Adaptations ant Adaptati	100 X 1 =	orting	(A <u>x</u>
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Ranunculus (Plot size: 1m diam.)		Yes = Total Cover Yes No	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FACU species UPL species Column totals Prevalence Ind Prevalence Ind Wetland Nor Problematic * Indicators of hydr present, unless dis	I Strata: ant Species ant Spe	100 X 1 =	orting	(A <u>x</u>
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Company of the size: 1m diam.)		Yes - Total Cover	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence In Hydrophytic Ve Dominance Drevalence In Wetland Nor Droblematic * Indicators of hydr present, unless dis Hydrophytic Ve	I Strata: ant Species ant Adaptations and	100 X 1 =	orting	(А
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Ranunculus (Plot size: 1m diam.)		Yes = Total Cover Yes No	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FACU species UPL species Column totals Prevalence Ind Prevalence Ind Wetland Nor Problematic * Indicators of hydr present, unless dis	I Strata: ant Species ant Adaptations and	x 1 = x 2 = x 3 = x 4 = x 5 = (B) cators (provide supprarate sheet) ts * getation * (exprand hydrology is mattic	orting lain) must be	(Av
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Ranunculus repens Control Ranunculus (Plot size: 1m diam.)		Yes - Total Cover	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence In Hydrophytic Ve Dominance Drevalence In Wetland Nor Droblematic * Indicators of hydr present, unless dis Hydrophytic Ve	I Strata: ant Species ant Adaptations and	x 1 = x 2 = x 3 = x 4 = x 5 = (B) cators (provide supprarate sheet) ts * getation * (exprand hydrology is mattic	orting lain) must be	(А
Sapling/Shrub Stratum (Plot size: 3m diam.) Rubus armeniacus Sapling/Shrub Stratum (Plot size: 1m diam.) Phalaris arundinacea Ranunculus repens Sapling Ranunculus (Plot size: 1m diam.)		Yes - Total Cover	FACW FAC	Species Across Al Percent of Domina that are OBL, FAC Prevalence Ind Total % OBL species FACW species FAC species UPL species Column totals Prevalence In Hydrophytic Ve Dominance Drevalence In Wetland Nor Problematic * Indicators of hydr present, unless dis Hydrophytic Ve	I Strata: ant Species ant Adaptations and	x 1 = x 2 = x 3 = x 4 = x 5 = (B) cators (provide supprarate sheet) ts * getation * (exprand hydrology is mattic	orting lain) must be	(А

SOIL									Sampl	ing Point – DF	-4	
Profile Descri	ption: (Descri	ibe to the	depth ne	eded to	document the indi	cator or confir	n the absence o	of indicator	s.)			
Depth		Matrix				Redox Featu			Ţ		1	
(inches)	Color (m		%		Color (moist)	%	Type¹	Loc²	1 7	exture	Re	emarks
0-10	7.5YR 2.5/		100		, , , , , , , , , , , , , , , , , , , ,				Gravelly	sandy loam		
0-10	7.011(2.01)	•									-	
									1		<u> </u>	
¹ Type: C=Cond	centration, D≕0	Depfetion, f	RM=Red	uced Mat	rix, CS=Covered or	Coated Sand G	rains ² Loc: Pl	L=Pore Linir	ıg, M≓Matrix			
	.V		-11.1.00				1	fau Deab	lematic Hyd	-in Cailaí		
Hydric Soil In		Micable to	all LKK		otherwise noted.) Redox (S5)			n Muck (A10	•	iic Solis		
☐ Histic Epip					d Matrix (S6)			i Parent Ma	•			
☐ Black Histi	` '				Mucky Mineral (F1)	(except MLRA		er (explain i				
	Sulfide (A4)			•	Gleyed Matrix (F2)	•	, <u> </u>		,			
, ,	Below Dark Sui	rface (A11)		-	ed Matrix (F3)							
☐ Thick Dark	Surface (A12)) ` `		Redox	Dark Surface (F6)					tion and wetland	hydrolog	gy must
☐ Sandy Mud	cky Mineral (S	1)		Deplete	ed Dark Surface (F7)	be prese	ent, unless d	isturbed or p	roblematic		
☐ Sandy Gle	yed Matrix (S4)		Redox	Depressions (F8)							
Restrictive Lay	or (if present):											
Type:	er (ii presenc).						13		V		Nia	
•							Hydric soil	present?	Yes		No	\boxtimes
Depth (inches)												
Remarks:												
HYDROLOGY												
Mottond Hude	ology Indigate											
Wetland Hydro Primary Indica	ology maicate ators (minimun		quired: cl	heck all th	at apply):			Secondary	Indicators (2	or more required	I):	
☐ Surface w	•				y Vegetated Concav	ve Surface (B8)		☐ Wat	er-Stained Le	aves (B9) (MLR.	A 1, 2, 4	A & 4B)
☐ High Wate	er Table (A2)			Water-S	Stained Leaves (exc	ept MLRA 1, 2	4A & 4B) (B9)	Drai	nage Pattern	s (B10)		
☐ Saturation	(A3)				ıst (B11)			☐ Dry-	Season Wate	er Table (C2)		
☐ Water Mar	ks (B1)			Aquatic	Invertebrates (813)			☐ Sate	ration Visible	on Aerial Image	ry (C9)	
☐ Sediment	Deposits (82)			Hydrog	en Sulfide Odor (C1))		☐ Geo	morphic Posi	tion (D2)		
☐ Drift Depo	sits (B3)			Oxidize	d Rhizospheres alor	ng Living Roots	(C3)		low Aquitard	•		
☐ Algal Mat	or Crust (B4)				e of Reduced Iron (•			-Neutral Test			
☐ Iron Depos					Iron Reduction in Ti					ds (D6) (LRR A)		
	oil Cracks (B6)				or Stressed Plants	(D1) (LRR A)		☐ Fros	t-Heave Hum	ımocks		
	Visible on Aeı	ial Imagery	/ 🗆	Other (e	xplain in remarks)							
(B7)												
Field Observa	tions						·					
Surface Water	Present?	Yes 🗆	No	\boxtimes	Depth (in):							
Water Table Pr	esent?	Yes 🗌	No	\boxtimes	Depth (in):		Wetland Hydro	logy Prese	nt? Ya	3	No	\bowtie
Saturation Pres		Yes 🗆	No	\boxtimes	Depth (in):		,	07				1231
(includes capilla	ary fringe)					İ						
Describe Recor	rded Data (stre	am daude	monitori	ing well a	erial photos, previo	us inspections).	if available:					
Decorios recou	ada bata (one	am gaoge,	, monkon		eriai prieses president							
Remarks:										·		***************************************
, tomorna.												



Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

				***************************************			1				
Project Site:	Lakeside - 1882	5 Renton Ma	ple Valle	ev SE			Sampling Date	1/10/201	7		
Applicant/Owner:	Lakeside Indus				** ***		Sampling Point				
Investigator:	Nell Lund, Anna						City/County:	Renton			
Sect., Township, Range:	S 19 T	23N R	06E				State:	WA			
Landform (hillslope, terrace	etc): terrace				Slope (%):	<5	Local relief (conc	ave convex nor	ne): none		
	, 0.0).							a,, 00111011, 1101			
Subregion (LRR): A				- 1	.at:		Long:		Datum:		
Soil Map Unit Name: Urba	an land						NWI classification	n: none			
Are climatic/hydrologic conc	litions on the site typic	cal for this time	of year?		Yes [□ No	(If no, explain in r	emarks.)			
Are "Normal Circumstances	" present on the site?				Yes [□ No					
Are Vegetation⊟, Soil □, o	r Hydrology 🗆 signific	cantly disturbed	?								
Are Vegetation□, Soil □, o		•					(If needed, explai	n any answers ir	n Remarks.)		
SUMMARY OF FINDING	3S – Attach site m	nap showing	samplin	g poin	t locatio	ns, trans	sects, important	features, etc.			
Hydrophytic Vegetation Pres	cont2	Yes 🛛	No [
1 ' ' '	senti										
Hydric Soils Present?		Yes 🖾			s the San	ipling Poi	nt within a Wetland	d? Yes	\boxtimes	No	
Wetland Hydrology Present	?	Yes 🖾	No l								
Remarks: Wetland	C inpit										
		-									
VEGETATION – Use sc	ientific names of	plants.		***************************************		***************************************					
							1				
Tree Stratum (Plot size: 5m	diam.)	Absolute		minant		ndicator	Dominance Te	est Worksheet	t		
		Cover	Sp	ecies?		tatus					
1. Populus balsamil	fera	15		Yes		FAC	Number of Domin		4		
2.							İ	'			(A)
3.							Total Number of		4		
4.							Species Across A		- T		(B)
		15	= T	otal Covi	er		Percent of Domir		100		
-							that are OBL, FA	CW, or FAC:	100		(A/B)
Sapling/Shrub Stratum (Pl	ot size: 3m diam.)							_			-'
1. Rubus armeniacu	'S	10		Yes		FAC	Prevalence Inc	dex Workshee	et .		
2. Rosa sp.		10		Yes		FAC	Total %	6 Cover of	Δ	Aultiply I	ΩY
3.						•	OBL species		x 1 =		
4.							FACW species		x 2 =		
5.							FAC species		x3=		
		20	= T	otal Cove	er		FACU species		x 4 =		
							UPL species		x5=		
Herb Stratum (Plot size: 1m	diam.)						Column totals	(A)	(B)		
1. Phalaris arundina	cea	80		Yes		FACW					
2. Solanum dulcama		10		No		FAC	Prevalence	Index = B / A =	•		
3.							1				
4.							Hydrophytic V	egetation Ind	icators		
5.								test is > 50%			
6.							☐ Prevalence	test is ≤ 3.0 *			j
7.								ical Adaptations	* (provide suo	oortina	
8.								arks or on a sep			
							1	on-Vascular Plan	•		
9.								c Hydrophytic Ve		alaia\	İ
10.							Problemati	c riyarapriyac ve	getation (exp	Jiaii 1)	
11.			_ T	-1-1 (
		90	= 10	otal Cove	1		* Indicators of hyd present, unless di			must be	•
Woody Vine Stratum (Plot s	izo. \						Present, Onless di	argined of higgin	aniauc		
	nzc.)										
1.											
2.							Hydrophytic V		Yes 🔀	No	
			= To	otal Cove	r		Presen	R.f	لاكا		·I
% Bare Ground in Herb Strat	um:										
Remarks:											ľ

SOIL							Sampling Point - I	DP-5								
Profile Descri	ption: (Describe to the o	depth ne	eded to document the	e indicator or confi	rm the absence o	of indicators	s.)									
Depth	Matrix	•		Redox Feat												
(inches)	Color (moist)	%	Color (mois	st) %	Type ¹	Loc ²	Texture	Remarks								
0-2	10YR 2/2	100					Sandy loam									
	401/0 0/4	400					Sandy Jaam	High OM								
2-3	10YR 2/1	100					Sandy Ioam	High Own								
3-10	2.5Y 2.5/1	100			ļ		Gravelly sandy loan	1								
¹Type: C=Cond	centration, D=Depletion, F	RM=Red	iced Matrix, CS=Cover	ed or Coated Sand	Grains ² Loc: Pl	.=Pore Linin	g, M=Matrix									
Hydric Soil Inc	dicators: (Applicable to	all LRRs	. unless otherwise no	oted.)	Indicato	rs for Prob	fematic Hydric Soils³									
☐ Histosof (A			Sandy Redox (S5)	,		n Muck (A10	•									
☐ Histic Epip	•		Stripped Matrix (S6)		☐ Red	l Parent Mat	erial (TF2)									
☐ Black Histin			Loamy Mucky Minera	l (F1) (except MLR	A 1) 🛛 Oth	er (explain ir	n remarks)									
	• •		Loamy Gleyed Matrix	(F2)												
• -	selow Dark Surface (A11)		Depleted Matrix (F3)	` '												
☐ Thick Dark			Redox Dark Surface	(F6)	3 Indicate	ors of hydroc	phytic vegetation and wetla	nd hvdrology mus								
	cky Mineral (S1)		Depleted Dark Surface	, .			isturbed or problematic									
-	•		Redox Depressions (•	•	•									
☐ Sandy Gle	yed Matrix (S4)		Kedox Deblessions (F0)												
Restrictive Lay	er (if present):															
Туре:					Hydric soil	present?	Yes 🔀	No 🗍								
Depth (inches):																
Remarks: (OM masking redox, f	-C	uis a al													
YDROLOGY								MYSSMIYIIISSAAAA aa	ology Indicators:							
•	ators (minimum of one red					-	Indicators (2 or more requi	•								
Surface was	ater (A1)		Sparsely Vegetated C				er-Stained Leaves (B9) (ML	_RA 1, 2, 4A & 4E								
	r Table (A2)		Water-Stained Leaves	s (except MLRA 1, 1	2, 4A & 4B) (B9)	☐ Drair	nage Patterns (B10)									
Saturation	(A3)		Salt Crust (811)			☐ Dry-!	Season Water Table (C2)									
Water Mar	ks (B1)		Aquatic Invertebrates	(813)		☐ Satu	ration Visible on Aerial Ima	gery (C9)								
Sediment I	Deposits (82)	\boxtimes	Hydrogen Sulfide Odd	or (C1)		☐ Geo	morphic Position (D2)									
☐ Drift Depos	sits (B3)		Oxidized Rhizosphere	s along Living Root	s (C3)	Shal	low Aquitard (D3)									
•	or Crust (B4)		Presence of Reduced	Iron (C4)		☐ FAC	-Neutral Test (D5)									
☐ Iron Depos			Recent Iron Reduction			☐ Rais	ed Ant Mounds (D6) (LRR	A)								
•	oil Cracks (B6)		Stunted or Stressed P				t-Heave Hummocks	,								
	Visible on Aerial Imagery		Other (explain in rema				i i i sai o i i si i mi o si o									
(B7)	violate and topical initiagety		- W. C. P. P. P. P. P. P. P. P. P. P. P. P. P.	- ,												
Field Observat	lions															
Surface Water I		No														
Water Table Pre	=	No		8" BGS	Madaged Heater	lawa D	Vac [57]	No [T]								
Saturation Pres	,00 2	No.		surface	Wetland Hydro	logy Preser	nt? Yes 🔀	No []								
(includes capilla	100	140														
Describe Recor	ded Data (stream gauge,	monitori	ng well, aerial photos, ;	previous inspections), if available:		<u> </u>									
Remarks:					•											
tomains.																



Western Mountains, Valleys, and Coast Supplement to the 1987 COE Wetlands Delineation Manual

DP- 6	
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Project Site: Lakeside - 18										
Project Sile Takesine - to	825 Renton Maple	Valley S	SE		Sampling Date:	1/10/201	7			
	ustries, Inc., Attn:				Sampling Point					
Investigator: Nell Lund, An					City/County:	Renton				
)6E			State:	WA				
Landform (hillslope, terrace, etc): hillslope			Stope (%): 5	Local relief (conca	ave, convex, no	ne): no	ne		
Subregion (LRR): A			Lat:		Long:		Da	tum:		
			1		NWI classification	none				
Soil Map Unit Name: Urban land			CTT 1/							
Are climatic/hydrologic conditions on the site ty			☐ Yes	☐ No	(If no, explain in re	emarks.)				
Are "Normal Circumstances" present on the sit		(☐ Yes	☐ No						
Are Vegetation □, Soil □, or Hydrology □ sign					(If needed, explain	n anv answers i	n Remar	ks.)		
Are Vegetation□, Soil □, or Hydrology □ natu					1					
SUMMARY OF FINDINGS – Attach site	map showing sa	mpling po	oint loca	tions, trans	sects, important	features, etc				
Hydrophytic Vegetation Present?	Yes 🖾	No 🗆								
Hydric Soils Present?		No 🖾				10 V			M	
			is the S	ampling Pol	nt within a Wetland	? Yes	Ш		No	
Wetland Hydrology Present?	Yes ∐ i	Vo ⊠								
Remarks:										
	- Industrials									
VEGETATION - Use scientific names of	of plants.				<u> </u>					
	* 1 1 0	Б	. 4	4	 		į.			
Tree Stratum (Plot size: 5m diam.)	Absolute % Cover	Domina Specie		Indicator Status	Dominance Te	st Workshee	et			
1.	00701	Орсско		Otatos	Number of Domin	ant Species				
2.					that are OBL, FA	CW, or FAC:		2		(A)
3.			1.000		Total Number of I	Dominant		_		٧٠,
4.					Species Across A	dl Strata:		2		(B)
		= Total (Cover		Percent of Domin			400		
						2141 ac C 4C+		100		
					that are OBL, FAG	SVV, OF PAC.				(A/B
Sapling/Shrub Stratum (Plot size: 3m diam.)					Inat are OBL, FAC	SVV, OF PAC.				(A/B
	70	Y	es	FAC	Prevalence Inc					(A/B
Sapling/Shrub Stratum (Plot size: 3m diam.) 1. Rubus armeniacus 2.	70	Υ	'es	FAC	Prevalence Inc			Mı	ultiply b	
1. Rubus armeniacus	70	Y	'es	FAC	Prevalence Inc	lex Workshe	et	<u>M</u> ı x 1 =	ultiply b	
Rubus armeniacus 2.	70	Y	es .	FAC	Prevalence Inc Total % OBL species FACW species	lex Workshe	et	x 1 = x 2 =	ultiply b	
Rubus armeniacus 2. 3.	70			FAC	Prevalence Inc Total % OBL species FACW species FAC species	lex Workshe	et	x 1 = x 2 = x 3 =	ultiply b	
Rubus armeniacus 3. 4.	70	Y = Total (FAC	Prevalence Inc Total % OBL species FACW species FAC species FACU species	lex Workshe	et	x 1 = x 2 = x 3 = x 4 =	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5.				FAC	Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species	lex Workshe Cover of	et	x 1 = x 2 = x 3 = x 4 = x 5 =	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.)	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species	lex Workshe	et	x 1 = x 2 = x 3 = x 4 =	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea		= Total C		FAC	Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals	dex Workshe Cover of (A)	et	x 1 = x 2 = x 3 = x 4 = x 5 =	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals	lex Workshe Cover of	et	x 1 = x 2 = x 3 = x 4 = x 5 =	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence in	dex Workshe Cover of (A) (A)	et	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V	dex Workshe Cover of (A) (A) Index = B / A	et	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V Dominance	(A) (A) egetation Incepted is \$2.50%	et	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	ultiply b	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V □ Dominance □ Prevalence	(A) ndex = B / A egetation incorest is > 50% test is < 3.0 *	et	x 1 = x 2 = x 3 = x 4 = x 5 = (B)		
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 6. 7.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi	(A) Index = B / A Regetation Incompletes is > 50% test is > 50% test is < 3.0 * cal Adaptations	et	x 1 = x 2 = x 3 = x 4 = x 5 = (B)		
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence I Hydrophytic V Dominance Prevalence Morphologi data in rem	(A) (A) ndex = B / A egetation incomes is > 50% test is > 50% tal Adaptations arks or on a se	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)		
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 6. 7.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence I Dominance Prevalence Morphologi data in rem Wetland No	iex Workshe Cover of (A) (A) ndex = B / A egetation inc test is > 50% test is < 3.0 * cal Adaptations arks or on a selon-Vascular Pla	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	(A) (A) ndex = B / A egetation incomes is > 50% test is > 50% tal Adaptations arks or on a se	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9.		= Total (Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	dex Workshe Cover of (A) (A) degetation incomes test is > 50% test is ≤ 3.0 * cal Adaptations arks or on a sepon-Vascular Place Hydrophytic V	et icators (provide parate shorts * egetation	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9.	70	= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10.		= Total (Cover		Prevalence Inc Total % OBL species FACW species FAC species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:)		= Total (Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:) 1.		= Total (Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence I Mydrophytic V Dominance Morphologi data in rem Wetland No Problematic * Indicators of hyd present, unless di	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B) de supponent n* (expl	orting lain) nust be	Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:)		= Total C	Cover		Prevalence Inc Total % OBL species FACW species FAC species FACU species UPL species Column totals Prevalence i Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B)	orting	Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y Y
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:) 1.		= Total (Cover		Prevalence Inc Total % OBL species FACW species FACU species UPL species Column totals Prevalence Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No Problematic * Indicators of hyd present, unless di	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B) de supponent n* (expl	orting lain) nust be	
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:) 1. 2.		= Total C	Cover		Prevalence Inc Total % OBL species FACW species FACU species UPL species Column totals Prevalence Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No Problematic * Indicators of hyd present, unless di	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B) de supponent n* (expl	orting lain) nust be	, and the second
1. Rubus armeniacus 2. 3. 4. 5. Herb Stratum (Plot size: 1m diam.) 1. Phalaris arundinacea 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. Woody Vine Stratum (Plot size:) 1.		= Total C	Cover		Prevalence Inc Total % OBL species FACW species FACU species UPL species Column totals Prevalence Hydrophytic V Dominance Prevalence Morphologi data in rem Wetland No Problematic * Indicators of hyd present, unless di	iex Workshe Cover of (A) (A) Index = B / A Inde	et iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	x 1 = x 2 = x 3 = x 4 = x 5 = (B) de supponent n* (expl	orting lain) nust be	, and the second

SOIL							Sampling P	oint - DP-6	3	
Profile Desc	ription: (Describe to the o	lepth ne	eded to document the indicat	tor or confi	rm the absence o	of indicators	s.)			
Depth	Matrix			Redox Feat			1	Т		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textur	e	Remarks	
0-14	10YR 2/2	100					Clay Ioam			
							-			
(m r)=r)=	-tt D-Doulation 5	23.1-10 adu	CS=C-vered or Ce	L Cood	21 00 01	D-setinin	- 43-13-1-1-1			
Type: C=Co	ncentration, D=Depletion, r	KM≖Keau	rced Matrix, CS=Covered or Co	sated Sand	Grains *Loc: Pi	.≃Pore Linin	g, M=Matrix			
•	,		, unless otherwise noted.)				lematic Hydric Sc	ils³		
☐ Histosoi (•		Sandy Redox (S5)			Muck (A10	•			
☐ Histic Epi			Stripped Matrix (S6)	waant MI D		l Parent Mat				
☐ Black His	• •		Learny Mucky Mineral (F1) (e	xcept MLK	(A 1)	er (explain ir	n remarks)			
☐ Hydroger☐ Depleted	Below Dark Surface (A11)		Loamy Gleyed Matrix (F2) Depleted Matrix (F3)		Ш					
•	k Surface (A12)		Redox Dark Surface (F6)		3 Indicate	ors of hydror	ohytic vegetation a	nd wetland hi	drotoay mus	sŧ.
	ucky Mineral (S1)		Depleted Dark Surface (F7)				isturbed or problen		raiology mai	•
•	eyed Matrix (S4)		Redox Depressions (F8)							
	yer (if present):						-		-	
Туре:					Hydric soil	present?	Yes		No 🔀	
Depth (inches	3):									
Remarks:										
YDROLOG'	<u> </u>									
Wetland Hvd	rology Indicators:									
	cators (minimum of one req					Secondary	Indicators (2 or mo	ore required):		
☐ Surface v	vater (A1)		Sparsely Vegetated Concave	Surface (B8	3)	☐ Wate	er-Stained Leaves	(89) (MLRA	1, 2, 4A & 4E	3)
☐ High Wal	er Table (A2)		Water-Stained Leaves (excep	t MLRA 1,	2, 4A & 4B) (B9)	☐ Drain	nage Patterns (B10	0)		
☐ Saturatio	• •		Salt Crust (B11)				Season Water Tab	. ,		
☐ Water Ma	, ,		Aquatic Invertebrates (B13)				ration Visible on A		(C9)	
	t Deposits (B2)		Hydrogen Sulfide Odor (C1)				morphic Position ((02)		
☐ Drift Dep	` '		Oxidized Rhizospheres along	-	s (C3)		low Aquitard (D3)			
	or Crust (B4)		Presence of Reduced Iron (C4	-			-Neutral Test (D5)	. .		
☐ Iron Depo			Recent Iron Reduction in Tilled	` '			ed Ant Mounds (De			
	Soil Cracks (86)		Stunted or Stressed Plants (D	1) (LRR A)		☐ Frost	t-Heave Hummock	S		
☐ Inundatio (87)	n Visible on Aerial Imagery		Other (explain in remarks)							
()										
Field Observ										
Surface Water	, , , ,		□ Depth (in):							
Water Table F	100		☑ Depth (in):		Wetland Hydro	logy Preser	nt? Yes		No 🔀	
Saturation Pre (includes capi		No	☑ Depth (in):							
Describe Reco	orded Data (stream gauge,	monitorir	ng well, aerial photos, previous	inspections), if available:			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Remarks:	Moist, not saturated									
r tomar.	moist, not suturated									

Wetland name or number: Wetland A

WETLAND RATING FORM - WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland: Renton Maple Valley SE – Wetland A

Date of Site visit: 1/10/2017

Rated by: Nell Lund, Anna Hoenig Trained by Ecology? Yes⊠ No□ Date of Training: 10/2008, 10/2015

SEC: $\underline{19}$ TWNSHP: $\underline{23N}$ RNGE: $\underline{16}$ Is S/T/R in Appendix D? Yes \square No \boxtimes

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland	Category	based on	FUNCTIONS	provided	by wetland
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I I II III IV 🛭

Category I = Score ≥70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions Score for Hydrologic Functions Score for Habitat Functions TOTAL score for functions

8	
6	
15	
29	_

Category based on SPECIAL CHARACTERISTICS of wetland

 $I \square II \square Does not Apply <math>\boxtimes$

Final Category (choose the "highest" category from above)

IV

Check the appropriate type and class of wetland being rated.

Wetland Type	Wetland Class	
Estuarine	Depressional	\boxtimes
Natural Heritage Wetland	Riverine	
Bog	Lake-fringe	
Mature Forest	Slope	\boxtimes
Old Growth Forest	Flats	
Coastal Lagoon	Freshwater Tidal	
Interdunal		
None of the above	Check if unit has multiple HGM classes present	×

Wetland name or number: Wetland A

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)? For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X*
SP2. Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species? For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X*
SP3. Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?		X*
SP4. Does the wetland unit have a local significance in addition to its functions? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		Х

^{*}The study area was reviewed for the presence of endangered, threatened, and priority species using WDFW online Priority Habitat and Species Data, PHS on the Web (http://wdfw.wa.gov/mapping/phs/).

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Classification of Wetland Units in Western Washington

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.

thousand)? YES – Freshwater Tidal Fringe NO – Saltwater Tidal Fringe If your wetland can be classified as a Freshwater Tidal Fringe use the forms j it is Saltwater Tidal Fringe it is rated as an Estuarine wetland. Wetlands that the first and second editions of the rating system are called Salt Water Tidal F Hydrogeomorphic Classification. Estuarine wetlands were categorized separal editions, and this separation is being kept in this revision. To maintain consist the term "Estuarine" wetland is kept. Please note, however, that the characteri Category I and II estuarine wetlands have changed (see p.). 2. The entire wetland unit is flat and precipitation is only source (>90%) of water to surface water runoff are NOT sources of water to the unit NO – go to 3 YES – The wetland class is Flat If your wetland can be classified as a "Flats" wetland, use the form for Depres 3. Does the entire wetland unit meet both of the following criteria? The vegetated part of the wetland is on the shores of a body of open we vegetation on the surface) at least 20 acres (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-frin 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) a seeps. It may flow subsurface, as sheetflow, or in a swale without distir The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except of	1. <i>E</i>	Are the water levels in the wetland unit usually controlled by tides (i.e. except during floods)? NO – go to 2
the first and second editions of the rating system are called Salt Water Tidal F Hydrogeomorphic Classification. Estuarine wetlands were categorized separal editions, and this separation is being kept in this revision. To maintain consist the term "Estuarine" wetland is kept. Please note, however, that the characteri Category I and II estuarine wetlands have changed (see p.). 2. The entire wetland unit is flat and precipitation is only source (>90%) of water to surface water runoff are NOT sources of water to the unit NO − go to 3		If yes, 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)
surface water runoff are NOT sources of water to the unit NO - go to 3		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 rated as an Estuarine wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).
 3. Does the entire wetland unit meet both of the following criteria? ☐ The vegetated part of the wetland is on the shores of a body of open we vegetation on the surface) at least 20 acres (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-frime. 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) a seeps. It may flow subsurface, as sheetflow, or in a swale without disting the water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except a small and shallow depressions or behind hummocks (depressions are useful east than a foot deep). 		
 □ The vegetated part of the wetland is on the shores of a body of open we vegetation on the surface) at least 20 acres (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-frim 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) a seeps. It may flow subsurface, as sheetflow, or in a swale without distinted the transfer of the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except a small and shallow depressions or behind hummocks (depressions are useful less than a foot deep). 		If your wetland can be classified as a "Flats" wetland, use the form for Depressional wetlands.
 □ The wetland is on a slope (slope can be very gradual), □ The water flows through the wetland in one direction (unidirectional) a seeps. It may flow subsurface, as sheetflow, or in a swale without disting the water leaves the wetland without being impounded? □ NOTE: Surface water does not pond in these types of wetlands except a small and shallow depressions or behind hummocks (depressions are useful less than a foot deep). 	3. D	 □ The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (8 ha) in size; □ At least 30% of the open water area is deeper than 6.6 ft (2 m)?
•	1 . C	 □ 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? NOTE: Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot deep).

Wetland name or number: Wetland A

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

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 your wetland. 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 class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

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

Wetland name or number: $Wetland\ A$

eversus escore		
D	Depressional and Flats Wetlands	Points
	WATER QUALITY FUNCTIONS - Indicators that wetland functions to improve water quality	11:00 11:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12:00 12 1
D	D 1. Does the wetland have the potential to improve water quality?	(see p. 38)
D	D 1.1 Characteristics of surface water flows out of the wetland: ☐ Unit is a depression with no surface water leaving it (no outlet)points = 3 ☐ Unit has an intermittently flowing, or highly constricted permanently flowing outletpoints = 2 ☑ Unit has an unconstricted, or slightly constricted, surface outlet (permanently flowing)	1
	Unit is a "flat" depression (Q.7 on key), or in the Flats class, with permanent surface outflow and no obvious natural outlet, and/or outlet is a man-made ditchpoints = 1 (If ditch is not permanently flowing treat unit as "intermittently flowing")	
	D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions).	
D		0
	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class):	
D	☐ Wetland has persistent, ungrazed, vegetation > = 95% of areapoints = 5	
	\boxtimes Wetland has persistent, ungrazed, vegetation $> = 1/2$ of areapoints = 3	3
	☐ Wetland has persistent, ungrazed vegetation > = 1/10 of areapoints = 1	
	\square Wetland has persistent, ungrazed vegetation <1/10 of areapoints = 0	
D	D1.4 Characteristics of seasonal ponding or inundation. This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs.	
	\square Area seasonally ponded is $> \frac{1}{2}$ total area of wetlandpoints = 4	0
	☐ Area seasonally ponded is > ¼ total area of wetlandpoints = 2	
	NOTE: See text for indicators of seasonal and permanent inundation.	
D	Total for D 1 Add the points in the boxes above	4
D	D 2. Does the wetland unit have the <u>opportunity</u> to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface <u>water coming into the wetland</u> that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.	(see p. 44)
	☐ Grazing in the wetland or within 150 ft	
	☐ Untreated stormwater discharges to wetland	multiplier
	☐ Tilled fields or orchards within 150 ft of wetland	•
	☐ A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging	<u>2</u>
	Residential, urban areas, golf courses are within 150 ft of wetland	=
	☐ Wetland is fed by groundwater high in phosphorus or nitrogen	
	☑ Other: industrial operations	
	YES multiply score in D 1. by 2 NO multiply score in D 1. by 1	
D	TOTAL - Water Quality Functions Multiply the score from D1 by D2 Add score to table on p. 1	8

D				
	HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and stream degrad			
	D 3. Does the wetland have the potential to reduce flooding and erosion?	(see p. 46)		
Ð	D 3.1 Characteristics of surface water flows out of the wetland unit			
	☐ Unit is a depression with no surface water leaving it (no outlet)points = 4			
	\Box Unit has an intermittently flowing, or highly constricted permanently flowing outlet points = 2			
	☐ Unit is a "flat" depression (Q.7 on key), or in the Flats class, with permanent surface	0		
	outflow and no obvious natural outlet, and/or outlet is a man-made ditchpoints = 1			
	(If ditch is not permanently flowing treat unit as "intermittently flowing")	}		
	☐ Unit has an unconstricted, or slightly constricted, surface outlet (permanently flowing)	İ		
_	points = 0			
D	D 3.2 Depth of storage during wet periods			
	Estimate the height of ponding above the bottom of the outlet For units with no outlet measure from the surface of permanent water or deepest part (if dry).			
	☐ Marks of ponding are at least 3 ft or more above the surface or bottom of outletpoints = 7			
	☐ The wetland is a "headwater" wetland"points = 5			
	☐ Marks of ponding between 2 ft to < 3 ft from surface or bottom of outletpoints = 5	3		
	☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outletpoints = 3			
	☐ Unit is flat (yes to Q.2 or Q.7 on key) but has small depressions on the surface that			
	trap waterpoints = 1			
	☐ Marks of ponding less than 0.5 ftpoints = 0			
D	D 3.3 Contribution of wetland unit 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	0		
	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 unitpoints = 0			
	☐ Entire unit is in the FLATS classpoints = 5			
D	Total for D 3 Add the points in the boxes above	3		
D	D 4. Does the wetland unit have the <u>opportunity</u> to reduce flooding and erosion?	(see p. 49)		
	Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding			
	or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled			
	by a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than			
	90% of the water in the wetland is from groundwater in areas where damaging groundwater			
	flooding does not occur.			
	Note which of the following conditions apply.	Multiplier		
	☐ Wetland is in a headwater of a river or stream that has flooding problems			
	☑ Wetland drains to a river or stream that has flooding problems	2		
	☐ Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river	_		
	or stream that has flooding problems			
	☐ Other			
D	TOTAL - Hydrologic Functions Multiply the score from D 3 by D 4	6		
	Add score to table on p. 1			

These questions apply to wetlands of all HGM (HABITAT FUNCTIONS - Indicators that wetland fun		
H 1. Does the wetland have the potential to provide hal		
H 1.1 Vegetation structure (see p. 72) Check the types of vegetation classes present (as defined more than 10% of the area of the wetland if unit small Aquatic bed ⊠ Emergent plants ⊠ Scrub/shrub (areas where shrubs have >30% cover) □ Forested (areas where trees have >30% cover) □ Forested areas have 3 out of 5 strata (canopy, subthat each cover 20% within the forested polygon	r)	1
Add the number of vegetation types that qualify. If you		
	4 structures or more	
H 1.2. Hydroperiods (see p. 73)		
Check the types of water regimes (hydroperiods) present cover more than 10% of the wetland or ¼ acre to count. ☑ Permanently flooded or inundated ☐ Occasionally flooded or inundated ☑ Saturated only ☐ Permanently flowing stream or river in, or adjacent ☐ Seasonally flowing stream in, or adjacent to, the well acceptable in the country ☐ Lake-fringe wetland = 2 points ☐ Freshwater tidal wetland = 2 points	4 or more types present	1
H 1.3. Richness of Plant Species (see p. 75) Count the number of plant species in the wetland that of	cover at least 10 ft ² . (different patches of the same	:
species can be combined to meet the size threshold)	(1,t)	:
You do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, pu	unto loggestrife Canadian thintle	
	\Box > 19 species points = 2	
List species below if you want to:	⊠ 5 - 19 species points = 1	
	\Box < 5 species points = 0	
		1
		•

H 1.4. Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. None = 0 points	-
H 1.5. Special Habitat Features: (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column. □ Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long). □ Standing snags (diameter at the bottom > 4 inches) in the wetland. □ Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream (or ditch) for at least 33 ft (10m). □ 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. □ At least ¼ acre of thin-stemmed persistent vegetation 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 each stratum of plants. Note: The 20% stated in early printings of the manual on page 78 is an error.	1
H 1. TOTAL Score - potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5	5

H 2. Does the wetland have the opportunity to provide habitat for many species?	
H 2.1 Buffers (see p. 80) Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed." □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No developed areas within undisturbed part of buffer. (relatively undisturbed also means no-grazing)	1
H 2.2 Corridors and Connections (see p. 81) H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor). □ YES = 4 points (go to H 2.3) ⋈ NO = go to H 2.2.2 H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above? ⋈ YES = 2 points (go to H 2.3) □ NO − H 2.2.3 H 2.2.3 Is the wetland: □ within 5 mi (8km) of a brackish or salt water estuary OR □ within 1 mi of a lake greater than 20 acres? □ YES = 1 point □ NO = 0 points	2

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of	
WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)	
Which of the following priority habitats are within 330ft (100m) of the wetland?	
(NOTE: the connections do not have to be relatively undisturbed)	
☐ Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acres).	
☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full description in WDFW PHS report p. 152)	
☐ 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 20 trees/ha (8 trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests.) Stands with average	
diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 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: Woodlands 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.)	
 ■ 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)	
 ✓ 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. 	4
□ 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: pp. 167-169 and glossary in Appendix A.)	
☐ 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 7.6 m (25 ft) high and occurring below 5000 ft.	
□ Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), 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 >51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30cm (12 in) in diameter at the largest end, and > 6m (20 ft) long.	
If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points	
Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.	

Wetland name or number: $Wetland\ A$

2.4 Wetland Landscape (choose the one description of the landscape around the wetland that best fits) (see p. 84) ☐ There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development	3
H 2. TOTAL Score - opportunity for providing habitat Add the scores from H2.1, H2.2, H2.3, H2.4	10
TOTAL for H1 from page 14	5
Total Score for Habitat Functions – add the points for H 1, H 2 and record the result on p. 1	15

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate Category.

Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
SC 1.0 Estuarine wetlands (see p. 86)	
Does the wetland unit 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 unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-151?	Cat. I
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?	
☐ YES = Category I	Cat. I
□ NO = Category II	
☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native Spartina spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are and Spartina would be rated a Category II while the	Cat. II
relatively undisturbed upper marsh with native species would be a Category I. Do not,	
however, exclude the area of Spartina in determining the size threshold of 1 acre. At least ¼ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed wetland.	Dual rating I/II
☐ The wetland has at least 2 or the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands.	

SC 2.0 Natural Heritage Wetlands (see p. 87)	
Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.	
SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? (this question is used to screen out most sites before you need to contact WNHP/DNR)	Cat. I
 □ S/T/R information from Appendix D – OR – ⋈ Accessed from WNHP/DNR web site □ YES – contact WNHP/DNR (see p. 79) and go to SC 2.2 ⋈ NO 	Cat. I
SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species?	
☑ NO = Not a Heritage Wetland	
 SC 3.0 Bogs (see p. 87) Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below to identify if the wetland is a bog. If you answer yes, you will still need to rate the wetland based on its functions. 1. Does the wetland have organic soils horizons (i.e. layers of organic soil), either peats or mucks, that compose 16" or more of the first 32 inches of the soil profile? (See Appendix B for a field key to identify organic soils.) ☐ Yes – go to Q.3 ☑ NO – go to Q.2 2. Does the wetland have organic soils, either peats or mucks, that are less than 16 inches 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 Q.3 ☑ NO – is not a bog for purpose of rating 3. Does the wetland have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists species in Table 	Cat. I
 3)? □ Yes – Is a hog for purpose of rating □ NO – go to Q.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" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog. 4. Is the wetland forested (>30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (>30% coverage of the total shrub/herbaceous cover)? □ YES = Category I □ NO – is not a bog for purpose of rating 	

SC 4.0 Forested Wetlands (see p. 90)	
Does the wetland have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? If you answer yes you will still need to rate the wetland based on its functions.	
☐ Old growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more.	
Note: The criterion for dbh is based on measurements for upland forests. Two hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.	Cat. I
☐ Mature forests: (west of the Cascade crest) Stands where the largest trees are 80-200 years of OR have average diameters (dbh) exceeding 21 in (53 cm); crown cover may be less than 100% decay, decadence, numbers of snags, and quantity of large downed material is generally less that found in old-growth.	;
\square YES = Category 1 \square NO – not a forested wetland with special characteristics	
SC 5.0 Wetlands in Coastal Lagoons (see p. 91) 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 surgace 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 invasive plant species (see list of invasive species on p. 74).	Cat. II
At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.	
☐ The wetland is larger than 1/10 acre (4350 square feet)	
☐ YES = Category I ☐ NO = Category II	
SC 6.0 Interdunal Wetlands (see p. 93) Is the wetland unit west of the 1889 line (also called the Westarn Boundary of Upland Ownership or WBUO)?	
\square YES – go to SC 6.1 \square NO – not an interdunal wetland for rating	Cat. II
If you answer yes you will still need to rate the wetland based on its 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 - Ocean Shores-Copalis – lands west of SR 115 and SR 109	Cat. II
SC 6.1 Is the wetland 1 acre or larger, or is it in a mosaic of wetlands that is 1 acre or larger? \square YES = Category II \square NO – go to SC 6.2	Cat. III
SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre?	
☐ YES = Category III	
Category of wetland based on Special Characteristics Choose the "highest" rating if wetland falls into several categorie, and record on p. 1. If you answered NO for all types enter "Not Applicable" on p.1.	NA

WETLAND RATING FORM - WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland: Renton Maple Valley SE - Wetland B	Date of Site visit: <u>1/10/2017</u>
Rated by: Nell Lund, Anna Hoenig Trained by Ecology? Yes⊠ No□	Date of Training: <u>10/2008</u> , <u>10/2015</u>
SEC: 19 TWNSHP: 23N RNGE: 16 Is S/T/R in Appendix D? Yes□ No ⊠	

SUMMARY OF RATING

Category based on FUNCTIONS provided by wetland I □ II □ III □ IV ⋈

Category I = Score ≥70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions	
Score for Hydrologic Functions	
Score for Habitat Functions	
TOTAL score for functions	

Category based on SPECIAL CHARACTERISTICS of wetland

$\mathbf{I} \square$	Π	Does	not	Apply	\boxtimes
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Final Category (choose the "highest" category from above)

Check the appropriate type and class of wetland being rated.

Wetland Type	Wetland Class	
Estuarine	Depressional	\boxtimes
Natural Heritage Wetland	Riverine	
Bog	Lake-fringe	
Mature Forest	Slope	\boxtimes
Old Growth Forest	Flats	
Coastal Lagoon	Freshwater Tidal	
Interdunal	****	
None of the above	Check if unit has multiple HGM classes present	X

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)? For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X*
SP2. Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species? For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X*
SP3. Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?		X*
SP4. Does the wetland unit have a local significance in addition to its functions? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		Х

^{*}The study area was reviewed for the presence of endangered, threatened, and priority species using WDFW online Priority Habitat and Species Data, PHS on the Web (http://wdfw.wa.gov/mapping/phs/).

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Classification of Wetland Units in Western Washington

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 Ouestion 8.

1.	Are the water levels in the wetland unit usually controlled by tides (i.e. except during floods)? NO – go to 2
	If yes, 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 rated as an Estuarine wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).
2.	The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit \boxtimes NO - go to 3 \square 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 both of the following criteria? ☐ The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (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? NOTE: Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot deep). ☐ NO - go to 5 ☐ YES - The wetland class is Slope

)	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 two years NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding.
		NO - go to 6 ☐ YES – The wetland class is Riverine
	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. \square NO – go to 7 \square 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
	0	Vous watland unit seems to be difficult to classify and probably contains several different HCM classes

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 your wetland. 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 class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

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

D	Depressional and Flats Wetlands	Points	
	WATER QUALITY FUNCTIONS - Indicators that wetland functions to improve water quality		
D	D 1. Does the wetland have the potential to improve water quality?	(see p. 38)	
D	D 1.1 Characteristics of surface water flows out of the wetland: □ Unit is a depression with no surface water leaving it (no outlet)		
D	D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions). ☐ YES points = 4 ☒ NO points = 0	0	
D	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class):		
D	D1.4 Characteristics of seasonal ponding or inundation. This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs. □ Area seasonally ponded is > ½ total area of wetland		
D	Total for D 1 Add the points in the boxes above	8	
D	D 2. Does the wetland unit have the opportunity to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity.		
	☐ Grazing in the wetland or within 150 ft		
	☐ Untreated stormwater discharges to wetland	multiplier	
	☐ Tilled fields or orchards within 150 ft of wetland		
	☐ A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging		
	Residential, urban areas, golf courses are within 150 ft of wetland		
	☐ Wetland is fed by groundwater high in phosphorus or nitrogen		
	☑ Other: industrial operations		
	YES multiply score in D 1. by 2 NO multiply score in D 1. by 1		
D	TOTAL - Water Quality Functions Multiply the score from D1 by D2 Add score to tuble on p. 1	16	

D	Depresssional and Flats Wetlands			
	HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and stream	the state of the s		
	D 3. Does the wetland have the potential to reduce flooding and erosion?	(see p. 46)		
D	D 3.1 Characteristics of surface water flows out of the wetland unit			
	☑ Unit is a depression with no surface water leaving it (no outlet)points = 4			
	\square Unit has an intermittently flowing, or highly constricted permanently flowing outlet points = 2			
	☐ Unit is a "flat" depression (Q.7 on key), or in the Flats class, with permanent surface	4		
	outflow and no obvious natural outlet, and/or outlet is a man-made ditchpoints = 1			
	(If ditch is not permanently flowing treat unit as "intermittently flowing")			
	Unit has an unconstricted, or slightly constricted, surface outlet (permanently flowing)			
	points = 0			
D	D 3.2 Depth of storage during wet periods Estimate the height of ponding above the bottom of the outlet For units with no outlet measure from			
	the surface of permanent water or deepest part (if dry).			
	\square Marks of ponding are at least 3 ft or more above the surface or bottom of outletpoints = 7			
	☐ The wetland is a "headwater" wetland"points = 5	2		
	☐ Marks of ponding between 2 ft to < 3 ft from surface or bottom of outletpoints = 5	3		
	Marks are at least 0.5 ft to < 2 ft from surface or bottom of outletpoints = 3			
	☐ Unit is flat (yes to Q.2 or Q.7 on key) but has small depressions on the surface that			
	trap waterpoints = 1			
	\square Marks of ponding less than 0.5 ftpoints = 0			
D	D 3.3 Contribution of wetland unit 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 unitpoints = 5			
	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 unitpoints = 0			
	☐ Entire unit is in the FLATS class			
<u>D</u>	Total for D 3 Add the points in the boxes above	7		
D	D 4. Does the wetland unit have the <u>opportunity</u> to reduce flooding and erosion? Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in	(see p. 49)		
	water velocity, it provides helps protect downstream property and aquatic resources from flooding			
	or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by	-		
	a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than			
	90% of the water in the wetland is from groundwater in areas where damaging groundwater			
	flooding does not occur.			
	Note which of the following conditions apply.	Multiplier		
	☐ Wetland is in a headwater of a river or stream that has flooding problems			
	☐ Wetland drains to a river or stream that has flooding problems	2		
	☐ Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river or stream that has flooding problems			
	☐ Other			
	✓ YES multiplier is 2 ☐ NO multiplier is 1			
D	TOTAL - Hydrologic Functions Multiply the score from D 3 by D 4			
	Add score to table on p. 1	14		

These questions apply to wetlands of all HGM HABITAT FUNCTIONS - Indicators that wetland fun		
H 1. Does the wetland have the potential to provide ha		
H 1.1 <u>Vegetation structure</u> (see p. 72) Check the types of vegetation classes present (as define more than 10% of the area of the wetland if unit small	ed by Cowardin) if the class is ¼ acre or covers	
☐ Aquatic bed ☑ Emergent plants		
☐ Scrub/shrub (areas where shrubs have >30% cover	er)	
□ Forested (areas where trees have >30% cover)		
☐ Forested areas have 3 out of 5 strata (canopy, subthat each cover 20% within the forested polygon	canopy, shrubs, herbaceous, moss/ground-cover)	1
Add the number of vegetation types that qualify. If you	have:	
	4 structures or morepoints = 4	
	3 structurespoints = 2	
	2 structurespoints = 1	
	1 structure points = 0	
H 1.2. Hydroperiods (see p. 73)		
Check the types of water regimes (hydroperiods) preser		
cover more than 10% of the wetland or ¼ acre to count		
☐ Permanently flooded or inundated	4 or more types presentpoints = 3	
Seasonally flooded or inundated	3 types presentpoints = 2	
Occasionally flooded or inundated	2 types presentpoints = 1	1
	1 types present points = 0	
☐ Permanently flowing stream or river in, or adjacen		
☐ Seasonally flowing stream in, or adjacent to, the w	etland	
☐ Lake-fringe wetland = 2 points		
☐ Freshwater tidal wetland = 2 points		
H 1.3. Richness of Plant Species (see p. 75) Count the number of plant species in the wetland that species can be combined to meet the size threshold) You do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, put		
List species below if you want to:	\boxtimes 5 - 19 species points = 1	
List species below if you within to.	\Box < 5 species points = 0	
	□ < 5 species points = 0	
		1

	1	
H 1.4. Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.		
\square None = 0 points \square Low = 1 point \square Moderate = 2 points		
	1	
[riparian braided channels]		
\Box High = 3 points		
NOTE: If you have four or more vegetation types or three vegetation types and open water the rating is always "high".		
H 1.5. Special Habitat Features: (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column. Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long).		
☐ Standing snags (diameter at the bottom > 4 inches) in the wetland.		
Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream (or ditch) for at least 33 ft (10m).		
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present.		
☐ At least ¼ acre of thin-stemmed persistent vegetation 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 each stratum of plants. Note: The 20% stated in early printings of the manual on page 78 is an error.		
H 1. TOTAL Score - potential for providing habitat	4	

H 2. Does the wetland have the opportunity to provide habitat for many species?	· · · · · · · · · · · · · · · · · · ·
H 2.1 Buffers (see p. 80) Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed." □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No developed areas within undisturbed part of buffer. (relatively undisturbed also means no-grazing) □ 100 m (330 ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 95% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 25% circumference. □ 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 50 m (170ft) of relatively undisturbed vegetated areas, rocky areas, or open water for > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water > 50% circumference. □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water	4
H 2.2 Corridors and Connections (see p. 81) H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor). □ YES = 4 points (go to H 2.3) ⋈ NO = go to H 2.2.2 H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above? □ YES = 2 points (go to H 2.3) □ NO = H 2.2.3 H 2.2.3 Is the wetland: □ within 5 mi (8km) of a brackish or salt water estuary OR □ within 1 mi of a lake greater than 20 acres? □ YES = 1 point □ NO = 0 points	2

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)	
Which of the following priority habitats are within 330ft (100m) of the wetland?	
(NOTE: the connections do not have to be relatively undisturbed)	
☐ Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acres).	
☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full description in WDFW PHS report p. 152</i>)	
☐ 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 20 trees/ha (8	
trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests.) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 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: Woodlands 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.) □ 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)	
 ✓ 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. 	4
□ 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: pp. 167-169 and glossary in Appendix A.)	
☐ 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 7.6 m (25 ft) high and occurring below 5000 ft.	
☐ Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), composed of basalt, 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 >51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30cm (12 in) in diameter at the largest end, and > 6m (20 ft) long.	
If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points	
Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.	

2.4 Wetland Landscape (choose the one description of the landscape around the wetland that best fits) (see p. 84) There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development	3
H 2. TOTAL Score - opportunity for providing habitat	13
Add the scores from H2.1, H2.2, H2.3, H2.4 TOTAL for H1 from page 14	4
Total Score for Habitat Functions — add the points for H 1, H 2 and record the result on p. 1	17

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate Category.

Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
SC 1.0 Estuarine wetlands (see p. 86)	Advisors to visit and
Does the wetland unit 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 unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-151?	Cat. I
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?	
☐ YES = Category I	Cat. I
□ NO = Category II	
☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native Spartina spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are a f Spartina would be rated a Category II while the	Cat. II
relatively undisturbed upper marsh with native species would be a Category I. Do not, however, exclude the area of Spartina in determining the size threshold of 1 acre. At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed wetland. The wetland has at least 2 or the following features: tidal channels, depressions with open	Dual rating I/II
water, or contiguous freshwater wetlands.	

SC 2.0 Natural Heritage Wetlands (see p. 87)	
Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.	
SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? (this question is used to screen out most sites before you need to contact WNHP/DNR)	Cat. I
 □ S/T/R information from Appendix D – OR – ⋈ Accessed from WNHP/DNR web site □ YES – contact WNHP/DNR (see p. 79) and go to SC 2.2 ⋈ NO 	Catt
SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species?	
⊠ NO = Not a Heritage Wetland	
SC 3.0 Bogs (see p. 87) Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below to identify if the wetland is a bog. If you answer yes, you will still need to rate	
the wetland based on its functions.	
 Does the wetland have organic soils horizons (i.e. layers of organic soil), either peats or mucks, that compose 16" or more of the first 32 inches of the soil profile? (See Appendix B for a field key to identify organic soils.) Yes – go to Q.3 NO – go to Q.2 Does the wetland have organic soils, either peats or mucks, that are less than 16 inches 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 Q.3	
 NO – is not a bog for purpose of rating Does the wetland have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists species in Table 3)? 	Cat. I
☐ Yes – Is a bog for purpose of rating ☐ NO – go to Q.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" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog.	
4. Is the wetland forested (>30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (>30% coverage of the total shrub/herbaceous cover)?	
☐ YES = Category I ☐ NO – is not a bog for purpose of rating	

SC 4.0 Forested Wetlands (see p. 90)	
Does the wetland have at least 1 acre of forest that meet one of these criteria for the 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/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more.	
Note: The criterion for dbh is based on measurements for upland forests. Two hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.	Cat. I
☐ Mature forests: (west of the Cascade crest) Stands where the largest trees are 80-200 years old OR have average diameters (dbh) exceeding 21 in (53 cm); crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less that that found in old-growth.	
\square YES = Category 1 \boxtimes NO – not a forested wetland with special characteristics	
SC 5.0 Wetlands in Coastal Lagoons (see p. 91)	
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 surgace water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom)	Cat. I
☐ YES – Go to SC 5.1 ☐ NO – not a wetland in a coastal lagoon	
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 invasive plant species (see list of invasive species on p. 74). ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-moved grassland.	Cat. II
☐ The wetland is larger than 1/10 acre (4350 square feet) ☐ YES = Category I ☐ NO = Category II	
The category is	
SC 6.0 Interdunal Wetlands (see p. 93) Is the wetland unit west of the 1889 line (also called the Westarn Boundary of Upland Ownership or WBUO)?	
☐YES – go to SC 6.1 ☐ NO – not an interdunal wetland for rating	Cat. II
If you answer yes you will still need to rate the wetland based on its 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 - Ocean Shores-Copalis – lands west of SR 115 and SR 109	
SC 6.1 Is the wetland 1 acre or larger, or is it in a mosaic of wetlands that is 1 acre or larger? \[\sum \text{YES} = \text{Category II} \sum \text{NO} - \text{go to SC 6.2} \] SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre?	Cat. III
☐ YES = Category III	
Category of wetland based on Special Characteristics Choose the "highest" rating if wetland falls into several categorie, and record on p. 1. If you answered NO for all types enter "Not Applicable" on p. 1.	NA

WETLAND RATING FORM - WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland: Renton Maple Valley SE – Wetland C Date of Site visit: 1/12/2017

Rated by: Nell Lund, Anna Hoenig Trained by Ecology? Yes⊠ No□ Date of Training: 10/2008, 10/2015

SEC: $\underline{19}$ TWNSHP: $\underline{23N}$ RNGE: $\underline{16}$ Is S/T/R in Appendix D? Yes \square No \boxtimes

SUMMARY OF RATING

Category based on	FUNCTIONS	provided by	wetland
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Ι□	II \square	III 🗵	IV 🗆

Category I = Score ≥70
Category II = Score 51-69
Category III = Score 30-50
Category IV = Score < 30

Score for Water Quality Functions Score for Hydrologic Functions Score for Habitat Functions TOTAL score for functions

16	
6	_
22	-
44	

Category based on SPECIAL CHARACTERISTICS of wetland

I □ II □ Does not Apply ⊠

Final Category (choose the "highest" category from above)

III

Check the appropriate type and class of wetland being rated.

Wetland Type	Wetland Class	
Estuarine	Depressional	\boxtimes
Natural Heritage Wetland	Riverine	\boxtimes
Bog	Lake-fringe	
Mature Forest	Slope	\boxtimes
Old Growth Forest	Flats	
Coastal Lagoon	Freshwater Tidal	
Interdunal		
None of the above	Check if unit has multiple HGM classes present	\boxtimes

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)? For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X*
SP2. Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species? For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X*
SP3. Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?		X*
SP4. Does the wetland unit have a local significance in addition to its functions? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		Х

^{*}The study area was reviewed for the presence of endangered, threatened, and priority species using WDFW online Priority Habitat and Species Data, PHS on the Web (http://wdfw.wa.gov/mapping/phs/).

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Classification of Wetland Units in Western Washington

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 wetland unit usually controlled by tides (i.e. except during floods)? \bowtie NO – go to 2 \square YES – the wetland class is Tidal Fringe
	If yes, 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 rated as an Estuarine wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this séparation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).
2.	The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit \boxtimes NO - go to 3 \square 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 both of the following criteria? ☐ The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (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? NOTE: Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot deep). ☐ NO - go to 5 ☐ YES - The wetland class is Slope

 5. Does the entire wetland unit meet all of the following criteria? 		
	NO - go to 6 ☐ YES – The wetland class is Riverine	
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. \square NO – go to 7 \square 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. \boxtimes NO – go to 8 \square YES – The wetland class is Depressional	
8.	Your wetland unit seems to be difficult to classify and probably contains several different HGM classes.	

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 your wetland. 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 class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional + Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under wetlands with special characteristics

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

Wetland C has three HO	GM classes: depressiona	l, riverine and slope.	Rated as Depressional.

D	Depressional and Flats Wetlands	Points
	WATER QUALITY FUNCTIONS - Indicators that wetland functions to improve water quality	
D	D 1. Does the wetland have the potential to improve water quality?	(see p. 38)
D	D 1.1 Characteristics of surface water flows out of the wetland: ☐ Unit is a depression with no surface water leaving it (no outlet)	***
D	D 1.2 The soil 2 inches below the surface (or duff layer) is clay or organic (use NRCS definitions). \[\sum \text{YES} \text{points} = 4 \\ \text{NO} \text{points} = 0 \]	0
D	D 1.3 Characteristics of persistent vegetation (emergent, shrub, and/or forest Cowardin class): ⊠ Wetland has persistent, ungrazed, vegetation > = 95% of area	5
D	D1.4 Characteristics of seasonal ponding or inundation. This is the area of the wetland unit that is ponded for at least 2 months, but dries out sometime during the year. Do not count the area that is permanently ponded. Estimate area as the average condition 5 out of 10 yrs. □ Area seasonally ponded is > ½ total area of wetland	2
D	Total for D 1 Add the points in the boxes above	8
D	D 2. Does the wetland unit have the opportunity to improve water quality? Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants. A unit may have pollutants coming from several sources, but any single source would qualify as opportunity. □ Grazing in the wetland or within 150 ft □ Untreated stormwater discharges to wetland □ Tilled fields or orchards within 150 ft of wetland □ A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging □ Residential, urban areas, golf courses are within 150 ft of wetland □ Wetland is fed by groundwater high in phosphorus or nitrogen	(see p. 44) multiplier
	 ✓ We thank is fed by ground water ingran phosphorae of integers ✓ Other: industrial operations YES multiply score in D 1. by 2 NO multiply score in D 1. by 1 	
D	TOTAL - Water Quality Functions Multiply the score from D1 by D2 Add score to table on p. 1	16

D	Depresssional and Flats Wetlands			
	HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and stream degradation			
	D 3. Does the wetland have the potential to reduce flooding and erosion?	(see p. 46)		
D	D 3.1 Characteristics of surface water flows out of the wetland unit			
	☐ Unit is a depression with no surface water leaving it (no outlet)points = 4			
	☐ Unit has an intermittently flowing, or highly constricted permanently flowing outlet.points = 2			
	☐ Unit is a "flat" depression (Q.7 on key), or in the Flats class, with permanent surface	0		
	outflow and no obvious natural outlet, and/or outlet is a man-made ditchpoints = 1			
	(If ditch is not permanently flowing treat unit as "intermittently flowing")			
	☐ Unit has an unconstricted, or slightly constricted, surface outlet (permanently flowing)			
	points = 0			
D	D 3.2 Depth of storage during wet periods			
	Estimate the height of ponding above the bottom of the outlet For units with no outlet measure from the surface of permanent water or deepest part (if dry).			
	☐ Marks of ponding are at least 3 ft or more above the surface or bottom of outlet points = 7			
	☐ The wetland is a "headwater" wetland"			
	☐ Marks of ponding between 2 ft to < 3 ft from surface or bottom of outletpoints = 5	3		
	✓ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outletpoints = 3			
	☐ Unit is flat (yes to Q.2 or Q.7 on key) but has small depressions on the surface that			
	trap waterpoints = 1			
	☐ Marks of ponding less than 0.5 ftpoints = 0			
D	D 3.3 Contribution of wetland unit 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 unitpoints = 5	0		
	☐ The area of the basin is 10 to 100 times the area of the unitpoints = 3			
	☐ The area of the basin is more than 100 times the area of the unitpoints = 0			
	☐ Entire unit is in the FLATS classpoints = 5			
D	Total for D 3 Add the points in the boxes above	3		
D	D 4. Does the wetland unit have the <u>opportunity</u> to reduce flooding and erosion?	(see p. 49)		
	Answer YES if the unit is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding			
	or excessive and/or erosive flows. Answer NO if the water coming into the wetland is controlled by			
	a structure such as flood gate, tide gate, flap valve, reservoir etc. OR you estimate that more than			
	90% of the water in the wetland is from groundwater in areas where damaging groundwater			
	flooding does not occur.			
	Note which of the following conditions apply.	Multiplier		
	☐ Wetland is in a headwater of a river or stream that has flooding problems			
	■ Wetland drains to a river or stream that has flooding problems	2		
	☐ Wetland has no outlet and impounds surface runoff water that might otherwise flow into a river	_		
	or stream that has flooding problems			
	☐ Other	-		
	☑ YES multiplier is 2 □ NO multiplier is 1			
D	TOTAL - Hydrologic Functions Multiply the score from D 3 by D 4	6		
	Add score to table on p. 1	-		

These questions apply to wetlands of all H		
HABITAT FUNCTIONS - Indicators that wetlan H 1. Does the wetland have the <u>potential</u> to provi		
H 1.1 Vegetation structure (see p. 72)	due nabitat for many species:	
	defined by Cowardin) if the class is 1/4 acre or covers	
more than 10% of the area of the wetland if ur		
☐ Aquatic bed		
☐ Emergent plants		
⊠ Scrub/shrub (areas where shrubs have >30%)	6 cover)	
□ Forested (areas where trees have >30% covered to the state of the state	er)	
□ Forested areas have 3 out of 5 strata (canop)	y, sub-canopy, shrubs, herbaceous, moss/ground-cover)	2
that each cover 20% within the forested poly		
Add the number of vegetation types that qualify	If you have:	
	4 structures or morepoints = 4	
я =	3 structurespoints = 2	
	2 structurespoints = 1	
	1 structurepoints = 0	
H 1.2. Hydroperiods (see p. 73)		
	present within the wetland. The water regime has to	
cover more than 10% of the wetland or ¼ acre to		
☐ Permanently flooded or inundated	4 or more types presentpoints = 3	
⊠ Seasonally flooded or inundated	3 types presentpoints = 2	
☐ Occasionally flooded or inundated	2 types presentpoints = 1	2
	1 types present points = 0	
☑ Permanently flowing stream or river in, or a		
☐ Seasonally flowing stream in, or adjacent to,	, the wetland	
☐ Lake-fringe wetland = 2 points		
☐ Freshwater tidal wetland = 2 points		
H 1.3. <u>Richness of Plant Species</u> (see p. 75) Count the number of plant species in the wetland species can be combined to meet the size threshold.	d that cover at least 10 ft ² . (different patches of the same old)	
You do not have to name the species.	*	
Do not include Eurasian milfoil, reed canarygra	ass, purple loosestrife, Canadian thistle	
	unted: $\square > 19$ species points = 2	
List species below if you want to:	\boxtimes 5 - 19 species points = 1	
	\square < 5 species points = 0	
g 8		
		1
	9	

	1
H 1.4. Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none.	
$\square \text{None} = 0 \text{ points} \qquad \square \text{Low} = 1 \text{ point} \qquad \boxtimes \text{Moderate} = 2 \text{ points}$	
	2
[riparian braided channels]	
\square High = 3 points	
NOTE: If you have four or more vegetation types or three vegetation types and open water the rating is always "high".	
 H 1.5. Special Habitat Features: (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column. ☑ Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long). 	
☑ Standing snags (diameter at the bottom > 4 inches) in the wetland.	
☑ Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream (or ditch) for at least 33 ft (10m).	3
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning (>30degree slope) OR signs of recent beaver activity are present.	
☐ At least ¼ acre of thin-stemmed persistent vegetation 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 each stratum of plants. Note: The 20% stated in early printings of the manual on page 78 is an error.	
H 1. TOTAL Score - potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5	01

H 2. Does the wetland have the opportunity to provide habitat for many species?	
H 2.1 Buffers (see p. 80) Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed." □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No developed areas within undisturbed part of buffer. (relatively undisturbed also means no-grazing)	3
H 2.2 Corridors and Connections (see p. 81) H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor). □ YES = 4 points (go to H 2.3) □ NO = go to H 2.2.2 H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above? □ YES = 2 points (go to H 2.3) □ NO = H 2.2.3 H 2.2.3 Is the wetland: □ within 5 mi (8km) of a brackish or salt water estuary OR □ within 3 mi of a large field or pasture (>40 acres) OR □ within 1 mi of a lake greater than 20 acres? □ YES = 1 points □ NO = 0 points	2

H 2.3 Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)	
Which of the following priority habitats are within 330ft (100m) of the wetland?	
(NOTE: the connections do not have to be relatively undisturbed)	
☐ Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acres).	
☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full description in WDFW PHS report p. 152)	
☐ 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 20 trees/ha (8	
trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests.) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 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: Woodlands 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.)	
 ■ 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)	4
☑ 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: pp. 167-169 and glossary in Appendix A.)	
☐ 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 7.6 m (25 ft) high and occurring below 5000 ft.	
☐ Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), 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 >51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30cm (12 in) in diameter at the largest end, and > 6m (20 ft) long.	()
If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points	
Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.	

	1
H 2.4 Wetland Landscape (choose the one description of the landscape around the wetland that best fits)	
(see p. 84)	
☐ There are at least 3 other wetlands within ½ mile, and the connections between them are	
relatively undisturbed (light grazing between wetlands OK, as is lake shore with some	
boating, but connections should NOT be bisected by paved roads, fill, fields, or	
other developmentpoints = 5	
☐ The wetland is Lake-fringe on a lake with little disturbance and there are 3 other	
lake-fringe wetlands within ½ milepoints = 5	3
	-
are disturbedpoints = 3	
☐ The wetland is Lake-fringe on a lake with disturbance and there are 3 other lake-fringe	
wetland within ½ milepoints = 3	
☐ There is at least 1 wetland within ½ milepoints = 2	
\Box There are no wetlands within ½ milepoints = 0	
H 2. TOTAL Score - opportunity for providing habitat	12
Add the scores from H2.1, H2.2, H2.3, H2.4	1 42
TOTAL for H1 from page 14	10
Total Score for Habitat Functions - add the points for H 1, H 2 and record the result on p. 1	22

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate Category.

Wetland Type Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	Category
SC 1.0 Estuarine wetlands (see p. 86)	
Does the wetland unit 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 unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-151?	Cat. I
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?	Cat. I
□ NO = Category II	
The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native Spartina spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are a Spartina would be rated a Category II while the	Cat, II
relatively undisturbed upper marsh with native species would be a Category I. Do not, however, exclude the area of Spartina in determining the size threshold of 1 acre. At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed wetland. The wetland has at least 2 or the following features: tidal channels, depressions with open	Dual rating I/II
water, or contiguous freshwater wetlands.	
	vivining skip

SC 2.0 Natural Heritage Wetlands (see p. 87)	
Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.	
SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? (this question is used to screen out most sites before you need to contact WNHP/DNR)	Cat. I
☐ S/T/R information from Appendix D – OR – ☒ Accessed from WNHP/DNR web site ☐ YES – contact WNHP/DNR (see p. 79) and go to SC 2.2 ☒ NO	Cau
SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species?	,
⊠ NO = Not a Heritage Wetland	
SC 3.0 Bogs (see p. 87)	
Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs?	
Use the key below to identify if the wetland is a bog. If you answer yes, you will still need to rate the wetland based on its functions.	
Does the wetland have organic soils horizons (i.e. layers of organic soil), either peats or	
mucks, that compose 16" or more of the first 32 inches of the soil profile? (See Appendix B	
for a field key to identify organic soils.)	
☐ Yes – go to Q.3	
\boxtimes NO – go to Q.2	
2. Does the wetland have organic soils, either peats or mucks, that are less than 16 inches 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 Q.3	
⋈ NO – is not a bog for purpose of rating	
3. Does the wetland have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists species in Table 3)?	Cat. I
☐ Yes – Is a bog for purpose of rating	
\square NO – go to Q.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" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog.	į
4. Is the wetland forested (>30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (>30% coverage of the total shrub/herbaceous cover)?	
☐ YES = Category I	
□ NO – is not a bog for purpose of rating	

SC 4.0 Forested Wetlands (see p. 90)	
Does the wetland have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? If you answer yes you will still need to rate the wetland based on its functions.	
☐ Old growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more.	
Note: The criterion for dbh is based on measurements for upland forests. Two hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.	Cat. I
☐ Mature forests: (west of the Cascade crest) Stands where the largest trees are 80-200 years old OR have average diameters (dbh) exceeding 21 in (53 cm); crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less that found in old-growth.	
\square YES = Category 1 \square NO – not a forested wetland with special characteristics	
SC 5.0 Wetlands in Coastal Lagoons (see p. 91) 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 surgace 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 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 invasive plant species (see list of invasive species on p. 74). ☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland. ☐ The wetland is larger than 1/10 acre (4350 square feet) ☐ YES = Category I ☐ NO = Category II	Cat. I Cat. II
SC 6.0 Interdunal Wetlands (see p. 93) Is the wetland unit west of the 1889 line (also called the Westarn Boundary of Upland Ownership or WBUO)? \[\textstyre{\tex	Cat. II Cat. III
☐ YES = Category III	
Category of wetland based on Special Characteristics Choose the "highest" rating if wetland falls into several categorie, and record on p. 1. If you answered NO for all types enter "Not Applicable" on p.1.	NA

WETLAND RATING FORM - WESTERN WASHINGTON

Version 2 – Updated July 2006 to increase accuracy and reproducibility among users Updated Oct 2008 with the new WDFW definitions for priority habitats

Name of wetland: Renton Maple Valley SE – Wetland ROW		Date of Site visit: $1/12/2017$
Rated by: Nell Lund, Anna Hoenig	Trained by Ecology? Yes⊠ No□	Date of Training: <u>10/2008</u> , <u>10/2015</u>
SEC: 19 TWNSHP: 23N RNGE: 16	Is S/T/R in Appendix D? Yes□ No ⊠	

SUMMARY OF RATING

tegory based on FUNCTIONS I □ II ⊠ III □ IV □	s provided by wettand	
Catagory I - Soors >70	Same for Water Ovelity Franctions	16
Category I = Score ≥70	Score for Water Quality Functions	10
Category II = Score 51-69	Score for Hydrologic Functions	22
Category I = Score 270 Category II = Score 51-69 Category III = Score 30-50 Category IV = Score < 30		174,550

Category based on SPECIAL CHARACTERISTICS of wetland

Π	Does no	it Appry		

Final Category (choose the "highest" category from above)

II

Check the appropriate type and class of wetland being rated.

Wetland Type		Wetland Class	
Estuarine		Depressional	
Natural Heritage Wetland		Riverine	\boxtimes
Bog		Lake-fringe	
Mature Forest		Slope	\boxtimes
Old Growth Forest		Flats	
Coastal Lagoon		Freshwater Tidal	
Interdunal			
None of the above		Check if unit has multiple HGM classes present	

Does the wetland unit being rated meet any of the criteria below?

If you answer YES to any of the questions below you will need to protect the wetland according to the regulations regarding the special characteristics found in the wetland.

Check List for Wetlands That May Need Additional Protection (in addition to the protection recommended for its category)	YES	NO
SP1. Has the wetland unit been documented as a habitat for any Federally listed Threatened or Endangered animal or plant species (T/E species)? For the purposes of this rating system, "documented" means the wetland is on the appropriate state or federal database.		X*
SP2. Has the wetland unit been documented as habitat for any State listed Threatened or Endangered animal species? For the purposes of this rating system, "documented" means the wetland is on the appropriate state database. Note: Wetlands with State listed plant species are categorized as Category I Natural Heritage Wetlands (see p. 19 of data form).		X*
SP3. Does the wetland unit contain individuals of Priority species listed by the WDFW for the state?		X*
SP4. Does the wetland unit have a local significance in addition to its functions? For example, the wetland has been identified in the Shoreline Master Program, the Critical Areas Ordinance, or in a local management plan as having special significance.		X

^{*}The study area was reviewed for the presence of endangered, threatened, and priority species using WDFW online Priority Habitat and Species Data, PHS on the Web (http://wdfw.wa.gov/mapping/phs/).

To complete the next part of the data sheet you will need to determine the Hydrogeomorphic Class of the wetland being rated.

The hydrogeomorphic classification groups wetlands into those that function in similar ways. Classifying the wetland first simplifies the questions needed to answer how it functions. The Hydrogeomorphic Class of a wetland can be determined using the key below. See p. 24 for more detailed instructions on classifying wetlands.

Classification of Wetland Units in Western Washington

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.

thousand)? YES – Freshwater Tidal Fringe NO – Saltwater Tidal Fringe (Estuar If your wetland can be classified as a Freshwater Tidal Fringe use the forms for Riveri it is Saltwater Tidal Fringe it is rated as an Estuarine wetland. Wetlands that were cal the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the editions, and this separation is being kept in this revision. To maintain consistency between the term "Estuarine" wetland is kept. Please note, however, that the characteristics that Category I and II estuarine wetlands have changed (see p.). 2. The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Ground 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 wetland unit meet both of the following criteria? The vegetated part of the wetland is on the shores of a body of open water (with vegetation on the surface) at least 20 acres (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 (Lact The water flows through the wetland in one direction (unidirectional) and usually seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except occasione.	1.	Are the water levels in the wetland unit usually controlled by tides (i.e. except during floods)? \square NO – go to 2 \square YES – the wetland class is Tidal Fringe
the first and second editions of the rating system are called Salt Water Tidal Fringe in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the editions, and this separation is being kept in this revision. To maintain consistency between the term "Estuarine" wetland is kept. Please note, however, that the characteristics that Category I and II estuarine wetlands have changed (see p.). 2. The entire wetland unit is flat and precipitation is only source (>90%) of water to it. Ground 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 wetland unit meet both of the following criteria? The vegetated part of the wetland is on the shores of a body of open water (with vegetation on the surface) at least 20 acres (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 (Lacute Water flows through the wetland in one direction (unidirectional) and usuall seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except occasions small and shallow depressions or behind hummocks (depressions are usually < 3 and less than a foot deep).		If yes, 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)
surface water runoff are NOT sources of water to the unit NO - go to 3		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 rated as an Estuarine wetland. Wetlands that were called estuarine in the first and second editions of the rating system are called Salt Water Tidal Fringe in the Hydrogeomorphic Classification. Estuarine wetlands were categorized separately in the earlier editions, and this separation is being kept in this revision. To maintain consistency between editions, the term "Estuarine" wetland is kept. Please note, however, that the characteristics that define Category I and II estuarine wetlands have changed (see p.).
 3. Does the entire wetland unit meet both of the following criteria? ☐ The vegetated part of the wetland is on the shores of a body of open water (with vegetation on the surface) at least 20 acres (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 (Lace 4.) 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 usuall seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. ☐ The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except occasione small and shallow depressions or behind hummocks (depressions are usually < 3 and less than a foot deep). 	2.	
The vegetated part of the wetland is on the shores of a body of open water (with vegetation on the surface) at least 20 acres (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 (Lace) The 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 usuall seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except occasione small and shallow depressions or behind hummocks (depressions are usually < 3 and less than a foot deep).		If your wetland can be classified as a "Flats" wetland, use the form for Depressional wetlands.
 □ The wetland is on a slope (slope can be very gradual), □ The water flows through the wetland in one direction (unidirectional) and usuall seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks. □ The water leaves the wetland without being impounded? NOTE: Surface water does not pond in these types of wetlands except occasione small and shallow depressions or behind hummocks (depressions are usually < 3 and less than a foot deep). 	3.	 □ The vegetated part of the wetland is on the shores of a body of open water (without any vegetation on the surface) at least 20 acres (8 ha) in size; □ At least 30% of the open water area is deeper than 6.6 ft (2 m)?
	4.	 □ 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? NOTE: Surface water does not pond in these types of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3ft diameter and less than a foot 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 two years NOTE: The riverine unit can contain depressions that are filled with water when the river is not flooding. ☐ NO - go to 6 ☐ YES - The wetland class is Riverine
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. \square NO – go to 7 \square 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. $\square \ NO - go \ to \ 8 \qquad \square \ \textbf{YES} - \text{The wetland class is } \textbf{Depressional}$
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 your wetland. 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 class listed in column 2 is less than 10% of the unit, classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM Class to Use in Rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake-fringe	Lake-fringe
Depressional + Riverine along stream within boundary	Depressional
Depressional Lake-fringe	Depressional
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE under
	wetlands with special
	characteristics

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

R	Riverine and Freshwater Tidal Fringe Wetlands	Points
	WATER QUALITY FUNCTIONS - Indicators that wetland functions to improve water quality	
R	R 1. Does the wetland have the potential to improve water quality?	(see p. 52)
R	R 1.1 Area of surface depressions within the riverine wetland that can trap sediments during a flooding event: □ Depressions cover > 3/4 area of wetland	2
R	R 1.2 Characteristics of the vegetation in the wetland (areas with > 90% cover at person height): □ Forest or shrub > 2/3 the area of the wetland	6
R	Total for R 1 Add the points in the boxes above	8
R	R 2. Does the wetland have the opportunity to improve water quality? (see p. 53) Answer YES if you know or believe there are pollutants in groundwater or surface water coming into the wetland that would otherwise reduce water quality in streams, lakes or groundwater downgradient from the wetland? Note which of the following conditions provide the sources of pollutants. □ Grazing in the wetland or within 150 ft □ Untreated stormwater discharges to wetland □ Tilled fields or orchards within 150 ft of wetland	multiplier
	 ☐ A stream or culvert discharges into wetland that drains developed areas, residential areas, farmed fields, roads, or clear-cut logging ☐ Residential, urban areas, golf courses are within 150 ft of wetland ☐ The river or stream linked to the wetland has a contributing basin where human activities have raised levels of sediment, toxic compounds or nutrients in the river water above standards for water quality ☐ Other	2
R	TOTAL - Water Quality Functions Multiply the score from R 1 by R 2 Add score to table on p. 1	16

Comments

R	Riverine and Freshwater Tidal Fringe Wetlands	
	HYDROLOGIC FUNCTIONS - Indicators that wetland functions to reduce flooding and strea	m erosion
	R 3. Does the wetland have the potential to reduce flooding and erosion?	(see p. 54)
R	R 3.1 Characteristics of the overbank storage the wetland provides: Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (width of wetland)/(width of stream). ☐ If the ratio is more than 20	4
R	R 3.2 Characteristics of vegetation that slow down water velocities during floods: Treat large woody debris as "forest or shrub". Choose the points appropriate for the best description. (polygons need to have >90% cover at person height NOT Cowardin classes) ☑ Forest or shrub for >1/3 area OR Emergent plants > 2/3 area	7
R	Total for R 3 Add the points in the boxes above	11
R	R 4. Does the wetland have the opportunity to reduce flooding and erosion? (see p. 57) Answer YES if the wetland is in a location in the watershed where the flood storage, or reduction in water velocity, it provides helps protect downstream property and aquatic resources from flooding or excessive and/or erosive flows. Note which of the following conditions apply. □ There are human structures and activities downstream (roads, buildings, bridges, farms) that can be damaged by flooding. □ There are natural resources downstream (e.g. salmon redds) that can be damaged by flooding □ Other	(see p. 57) multiplier
R	TOTAL - Hydrologic Functions Multiply the score from R 3 by R 4 Add score to table on p. 1	22

These questions apply to wetlands of all HGM of HABITAT FUNCTIONS - Indicators that wetland fund		
H 1. Does the wetland have the potential to provide hab	oitat for many species?	
H 1.1 Vegetation structure (see p. 72) Check the types of vegetation classes present (as defined more than 10% of the area of the wetland if unit small □ Aquatic bed □ Emergent plants □ Scrub/shrub (areas where shrubs have >30% cover) □ Forested (areas where trees have >30% cover) □ Forested areas have 3 out of 5 strata (canopy, subthat each cover 20% within the forested polygon Add the number of vegetation types that qualify. If you have	than 2.5 acres. canopy, shrubs, herbaceous, moss/ground-cover) have: 4 structures or morepoints = 4	0
	3 structurespoints = 2 2 structurespoints = 1	
	1 structurepoints = 0	
H 1.2. Hydroperiods (see p. 73) Check the types of water regimes (hydroperiods) present cover more than 10% of the wetland or ¼ acre to count. □ Permanently flooded or inundated □ Seasonally flooded or inundated □ Occasionally flooded or inundated □ Saturated only □ Permanently flowing stream or river in, or adjacent □ Seasonally flowing stream in, or adjacent to, the well-contains to the well-contains	(see text for descriptions of hydroperiods) 4 or more types presentpoints = 3 3 types presentpoints = 2 2 types presentpoints = 1 1 types presentpoints = 0 to, the wetland	
•	· · · · · · · · · · · · · · · · · · ·	-

H 1.4. Interspersion of habitats (see p. 76) Decide from the diagrams below whether interspersion between Cowardin vegetation classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, medium, low, or none. None = 0 points	
H 1.5. Special Habitat Features: (see p. 77) Check the habitat features that are present in the wetland. The number of checks is the number of points you put into the next column. □ Large, downed, woody debris within the wetland (>4in. diameter and 6 ft long). □ Standing snags (diameter at the bottom > 4 inches) in the wetland. □ Undercut banks are present for at least 6.6 ft (2m) and/or overhanging vegetation extends at least 3.3 ft (1m) over a stream for at least 33 ft (10m). □ 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. □ At least ¼ acre of thin-stemmed persistent vegetation 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 each stratum of plants. Note: The 20% stated in early printings of the manual on page 78 is an error.	0
H 1. TOTAL Score - potential for providing habitat Add the scores from H1.1, H1.2, H1.3, H1.4, H1.5	3

H 2. Does the wetland have the opportunity to provide habitat for many species?	
H 2.1 Buffers (see p. 80) Choose the description that best represents condition of buffer of wetland. The highest scoring criterion that applies to the wetland is to be used in the rating. See text for definition of "undisturbed." □ 100 m (330ft) of relatively undisturbed vegetated areas, rocky areas, or open water >95% of circumference. No developed areas within undisturbed part of buffer. (relatively undisturbed also means no-grazing)	. 3
H 2.2 Corridors and Connections (see p. 81) H 2.2.1 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 150 ft wide, has at least 30% cover of shrubs, forest or native undisturbed prairie, that connects to estuaries, other wetlands or undisturbed uplands that are at least 250 acres in size? (dams in riparian corridors, heavily used gravel roads, paved roads, are considered breaks in the corridor). \[\text{YES} = 4 \text{points} \text{ (go to } H 2.3) \] \[\text{NO} = \text{go to } H 2.2.2 \] \[\text{H 2.2.2 Is the wetland part of a relatively undisturbed and unbroken vegetated corridor (either riparian or upland) that is at least 50ft wide, has at least 30% cover of shrubs or forest, and connects to estuaries, other wetlands or undisturbed uplands that are at least 25 acres in size? \text{ OR a Lake-fringe wetland, if it does not have an undisturbed corridor as in the question above?} \[\text{ YES} = 2 \text{ points} \text{ (go to } H 2.3) \] \[\text{ In NO} = H 2.2.3 \] \[\text{H 2.2.3 Is the wetland:} \[\text{ within 5 mi (8km) of a brackish or salt water estuary OR} \[\text{ within 1 mi of a lake greater than 20 acres?} \]	2

Н	2.3 Near or adjacent to other priority habitats listed by WDFW (see new and complete descriptions of WDFW priority habitats, and the counties in which they can be found, in the PHS report http://wdfw.wa.gov/hab/phslist.htm)	
	Which of the following priority habitats are within 330ft (100m) of the wetland?	
	(NOTE: the connections do not have to be relatively undisturbed)	
	☐ Aspen Stands: Pure or mixed stands of aspen greater than 0.4 ha (1 acres).	
	☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full description in WDFW PHS report p. 152</i>)	
	☐ Herbaccous 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 20 trees/ha (8	
	trees/acre) > 81 cm (32 in) dbh or > 200 years of age. (Mature forests.) Stands with average diameters exceeding 53 cm (21 in) dbh; crown cover may be less that 100%; crown cover may be less that 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: Woodlands 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.)	
	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)	4
	☑ 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: pp. 167-169 and glossary in Appendix A.)	
	☐ 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 7.6 m (25 ft) high and occurring below 5000 ft.	
	□ Talus: Homogenous areas of rock rubble ranging in average size 0.15 - 2.0 m (0.5 - 6.5 ft), 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 >51 cm (20 in) in western Washington and are > 2 m (6.5 ft) in height. Priority logs are > 30cm (12 in) in diameter at the largest end, and > 6m (20 ft) long.	
	If wetland has 3 or more priority habitats = 4 points If wetland has 2 priority habitats = 3 points If wetland has 1 priority habitat = 1 point No habitats = 0 points	d.
	Note: All vegetated wetland are by definition a priority habitat but are not included in this list. Nearby wetlands are addressed in question H2.4.	

H 2.4 Wetland Landscape (choose the one description of the landscape around the wetland that best fits) (see p. 84) □ There are at least 3 other wetlands within ½ mile, and the connections between them are relatively undisturbed (light grazing between wetlands OK, as is lake shore with some boating, but connections should NOT be bisected by paved roads, fill, fields, or other development	3
H 2. TOTAL Score - opportunity for providing habitat Add the scores from H2.1, H2.2, H2.3, H2.4	12
TOTAL for H1 from page 14	3
Total Score for Habitat Functions - add the points for H 1, H 2 and record the result on p. 1	15

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Please determine if the wetland meets the attributes described below and circle the appropriate Category.

Wetland Type	Categor
Check off any criteria that apply to the wetland. Circle the Category when the appropriate criteria are met.	
SC 1.0 Estuarine wetlands (see p. 86)	
Does the wetland unit meet the following criteria for Estuarine wetlands?	
☐ The dominant water regime is tidal,	
☐ Vegetated, and	
☐ With a salinity greater than 0.5 ppt.	
\square YES = Go to SC 1.1	
⊠ NO	
SC 1.1 Is the wetland unit within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-151?	Cat. I
SC 1.2 Is the wetland unit at least 1 acre in size and meets at least two of the following three conditions?	
☐ YES = Category I	Cat. I
□ NO = Category II	
	Married Town
☐ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. If the non-native Spartina spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are a f Spartina would be rated a Category II while the relatively undisturbed upper marsh with native species would be a Category I. Do not,	Cat. II
and has less than 10% cover of non-native plant species. If the non-native Spartina spp. are the only species that cover more than 10% of the wetland, then the wetland should be given a dual rating (I/II) The are a Spartina would be rated a Category II while the	Cat. II Dual rating I/II

SC 2.0 Natural Heritage Wetlands (see p. 87)	
Natural Heritage wetlands have been identified by the Washington Natural Heritage Program/DNR as either high quality undisturbed wetlands or wetlands that support state Threatened, Endangered, or Sensitive plant species.	
SC 2.1 Is the wetland being rated in a Section/Township/Range that contains a Natural Heritage wetland? (this question is used to screen out most sites before you need to contact WNHP/DNR) □ S/T/R information from Appendix D − OR − ⋈ Accessed from WNHP/DNR web site □ YES − contact WNHP/DNR (see p. 79) and go to SC 2.2	Cat. I
 ⋈ NO SC 2.2 Has DNR identified the wetland as a high quality undisturbed wetland or as or as a site with state threatened or endangered plant species? ☐ YES = Category I ⋈ NO = Not a Heritage Wetland 	
SC 3.0 Bogs (see p. 87) Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key helow to identify if the wetland is a bog. If you answer yes, you will still need to rate the wetland based on its functions. 1. Does the wetland have organic soils horizons (i.e. layers of organic soil), either peats or mucks, that compose 16" or more of the first 32 inches of the soil profile? (See Appendix B for a field key to identify organic soils.) □ Yes − go to Q.3 □ NO − go to Q.2 2. Does the wetland have organic soils, either peats or mucks, that are less than 16 inches 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 Q.3 □ NO − is not a bog for purpose of rating 3. Does the wetland have more than 70% cover of mosses at ground level, AND other plants, if present, consist of the "bog" species listed in Table 3 as a significant component of the vegetation (more than 30% of the total shrub and herbaceous cover consists species in Table 3)? □ Yes − is a bog for purpose of rating □ NO − go to Q.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" deep. If the pH is less than 5.0 and the "bog" plant species in Table 3 are present, the wetland is a bog. 4. Is the wetland forested (>30% cover) with sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Englemann's spruce, or western white pine, WITH any of the species (or combination of species) on the bog species plant list in Table 3 as a significant component of the ground cover (>30% coverage of the total shrub/herbaceous cover)?	Cat. I
☐ YES = Category I ☐ NO – is not a bog for purpose of rating	

SC 4.0 Forested Wetlands (see p. 90)	
Does the wetland have at least 1 acre of forest that meet one of these criteria for the Department of Fish and Wildlife's forests as priority habitats? If you answer yes you will still need to rate the wetland based on its functions.	
☐ Old growth forests: (west of Cascade crest) Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/acre (20 trees/hectare) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 inches (81 cm) or more.	
Note: The criterion for dbh is based on measurements for upland forests. Two hundred year old trees in wetlands will often have a smaller dbh because their growth rates are often slower. The DFW criterion is and "OR" so old-growth forests do not necessarily have to have trees of this diameter.	Cat. I
☐ Mature forests: (west of the Cascade crest) Stands where the largest trees are 80-200 years of OR have average diameters (dbh) exceeding 21 in (53 cm); crown cover may be less than 100% decay, decadence, numbers of snags, and quantity of large downed material is generally less that found in old-growth.	,
\square YES = Category 1 \square NO – not a forested wetland with special characteristics	
SC 5.0 Wetlands in Coastal Lagoons (see p. 91) 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 surgace 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 invasive plant species (see list of invasive	Cat, II
species on p. 74).	Cat. II
☐ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland.	
☐ The wetland is larger than 1/10 acre (4350 square feet)	
\square YES = Category I \square NO = Category II	
SC 6.0 Interdunal Wetlands (see p. 93) Is the wetland unit west of the 1889 line (also called the Westarn Boundary of Upland Ownership or WBUO)?	
☐YES – go to SC 6.1 ☐ NO – not an interdunal wetland for rating	
If you answer yes you will still need to rate the wetland based on its functions. In practical terms that means the following geographic areas: - Long Beach Peninsula – lands west of SR 103	Cat. II
- Grayland-Westport – lands west of SR 105 - Ocean Shores-Copalis – lands west of SR 115 and SR 109	
SC 6.1 Is the wetland 1 acre or larger, or is it in a mosaic of wetlands that is 1 acre or larger? \[\sum \text{YES} = \text{Category II} \sum \text{NO} - \text{go to SC 6.2} \]	Cat. III
SC 6.2 Is the unit between 0.1 and 1 acre, or is it in a mosaic of wetlands that is between 0.1 and 1 acre?	
☐ YES = Category III	
Category of wetland based on Special Characteristics	
Choose the "highest" rating if wetland falls into several categorie, and record on p. 1. If you answered NO for all types enter "Not Applicable" on p.1.	NA