Appendix D

Wetland Rating Forms

RATING SUMMARY – Western Washington

Name of wetland (or I	ID #): <u>W1</u>			Date of site visit:	8/18/2020
Rated by Per Johnson	on, Aaron Thom	Trained by Eco	ology?⊡ Yes□ No	Date of training	2014, 2018
HGM Class used for	rating Depressio	nal & Flats	Wetland has multip	le HGM classes? ☑	Yes □ No
	-	e with out the figures req		be combined).	
OVERALL WETLAND CATEGORY [based on functions ☑ or special characteristics □)					
1. Category of wetland based on FUNCTIONS					
_	Category	I - Total score = 23 - 27		Score for each	
	Category	II - Total score = 20 - 22		function based	
	X Category	III - Total score = 16 - 19		on three	
_	Category	IV - Total score = 9 - 15		ratings	
				(order of ratings	
FUNCTION	Improving	Hydrologic Habitat		is not	
TONCTION	Water Quality			important)	

FUNCTION Improving Water Quality		Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	M	L	L	
Landscape Potential	M	M	L	
Value	M	Н	М	Total
Score Based on Ratings	6	6	4	16

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	e water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	iods of annual low flow below 0.5 ppt (parts per thousand)?
		a Freshwater Tidal Fringe use the forms for Riverine wetlands. I stuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.
V	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
▽	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i>). The water flows through the wetland may flow subsurface, as sheetflow, on The water leaves the wetland witho .	be very gradual), in one direction (unidirectional) and usually comes from seeps. I or in a swale without distinct banks.
	NO - go to 5	☑ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at least	nnel, where it gets inundated by overbank flooding
	NO - go to 6	☐ YES - The wetland class is Riverine
	-	ons that are filled with water when the river is not flooding.

Wetland	name	or number	W1	

☑ NO - go to 7

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.

7. Is the entire wetland unit located in a very flat area with no obvious depression and no everbank floodi

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.

☐ YES - The wetland class is **Depressional**

□ NO - go to 8 □ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

A portion of the wetland is sloped and a portion is depressional, therefore a Depressional HGM class was used for this rating. W1 recieves overland flow and seasonal ground water. Its outlet is a French drain east of wetland.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly	points = 3	
constricted permanently flowing outlet. Use Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	3
that is permanently flowing ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	points = 1	
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).	Yes = 4 No = 0	0
D 1.3. <u>Characteristics and distribution of persistent plants</u> (Emergent, Scrub-shrucowardin classes):	ub, and/or Forested	
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	5
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:	peinte c	
This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	-
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	8
Rating of Site Potential If score is: 12 - 16 = H	Record the rating on	
	,	, 3
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		1
generate pollutants?	Yes = 1 No = 0	I
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	_
	in the boxes above	1
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L		the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	` '	1
	Yes = 1 No = 0	
D 3.3. Has the site been identified in a watershed or local plan as important for		0
maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	\	0
,	Yes = 2 No = 0	4
Total for D 3 Add the points Rating of Value If score is: □ 2 - 4 = H ☑ 1 = M □ 0 = L	in the boxes above Record the rating on	the first name
	- Necora life rallifu Off	ure moupage

<u>DEPRESSIONAL AND FLATS WETLANDS</u>				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation				
D 4.0. Does the site have the potential to reduce flooding and erosion?				
D 4.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression with no surface water				
leaving it (no outlet) points = 4				
Wetland has an intermittently flowing stream or ditch, OR highly	4			
constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	4			
• • • • • • • • • • • • • • • • • • • •				
permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet				
that is permanently flowing points = 0				
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the				
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the				
deepest part.				
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7				
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0			
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3				
☐ The wetland is a "headwater" wetland points = 3				
Wetland is flat but has small depressions on the surface that trap water points = 1				
Marks of ponding less than 0.5 ft (6 in)	*			
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of				
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.				
☐ The area of the basin is less than 10 times the area of the unit points = 5	•			
The area of the basin is 10 to 100 times the area of the unit points = 3	0			
The area of the basin is more than 100 times the area of the unit points = 0				
☐ Entire wetland is in the Flats class points = 5				
Total for D 4 Add the points in the boxes above	4			
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page			
D 5.0. Does the landscape have the potential to support hydrologic function of the site?				
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0			
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?				
Yes = 1 No = 0	1			
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land				
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1			
Yes = 1 No = 0				
Total for D 5 Add the points in the boxes above	2			
Rating of Landscape Potential If score is: \square 3 = H \square 1 or 2 = M \square 0 = L Record the rating on	the first page			
D 6.0. Are the hydrologic functions provided by the site valuable to society?				
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best				
matches conditions around the wetland unit being rated. Do not add points. Choose the highest				
score if more than one condition is met.				
The wetland captures surface water that would otherwise flow down-gradient into areas				
where flooding has damaged human or natural resources (e.g., houses or salmon redds):				
 Flooding occurs in a sub-basin that is immediately down- 				
gradient of unit. points = 2	2			
 Surface flooding problems are in a sub-basin farther down- 	2			
gradient. points = 1				
☐ Flooding from groundwater is an issue in the sub-basin. points = 1				
☐ The existing or potential outflow from the wetland is so constrained				
by human or natural conditions that the water stored by the wetland				
cannot reach areas that flood. Explain why points = 0				
☐ There are no problems with flooding downstream of the wetland. points = 0				
D 6.2. Has the site been identified as important for flood storage or flood	0			
conveyance in a regional flood control plan? Yes = 2 No = 0				
Total for D 6 Add the points in the boxes above Rating of Value If score is: □ 2 - 4 = H □ 1 = M □ 0 = L Record the rating on	2			
	the first page			

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ½ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.	
 □ Aquatic bed □ Emergent □ Scrub-shrub (areas where shrubs have > 30% cover) □ Forested (areas where trees have > 30% cover) □ If the unit has a Forested class, check if: □ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods 	1
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). □ Permanently flooded or inundated 4 or more types present: points = 3	
☐ Seasonally flooded or inundated ☐ 3 types present: points = 3 ☐ Occasionally flooded or inundated ☐ 2 types present: points = 1 ☐ Saturated only ☐ 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland	0
☐ Lake Fringe wetland 2 points	
☐ Freshwater tidal wetland 2 points H 1.3. Richness of plant species	
Count the number of plant species in the wetland that cover at least 10 ft ² . Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.	1
None = 0 points Low = 1 point Moderate = 2 points All three diagrams	
in this row are HIGH = 3 points	

h.,	
H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☑ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	3
☐ 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 (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H	
1.1 for list of strata)	_
Total for H 1 Add the points in the boxes above	
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating of	the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
8 % undisturbed habitat + (3 % moderate & low intensity land uses / 2) = 9.5%	
70 moderate a low interiorly land about 2 j = 0.070	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
19 % undisturbed habitat + (26 % moderate & low intensity land uses / 2) = 32%	
He distants of helitate 700% of Delevery	1
Undisturbed habitat > 50% of Polygon points = 3	
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	
Rating of Landscape Potential If Score is: 4-6=H 1-3=M <<1=L Record the rating of	the first page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	I
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	1
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
·	
Site does not meet any of the criteria above points = 0	the first page

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

Wetland	name	٥r	number	W1	
vvenano	name	OI.	Hullibei	VVI	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

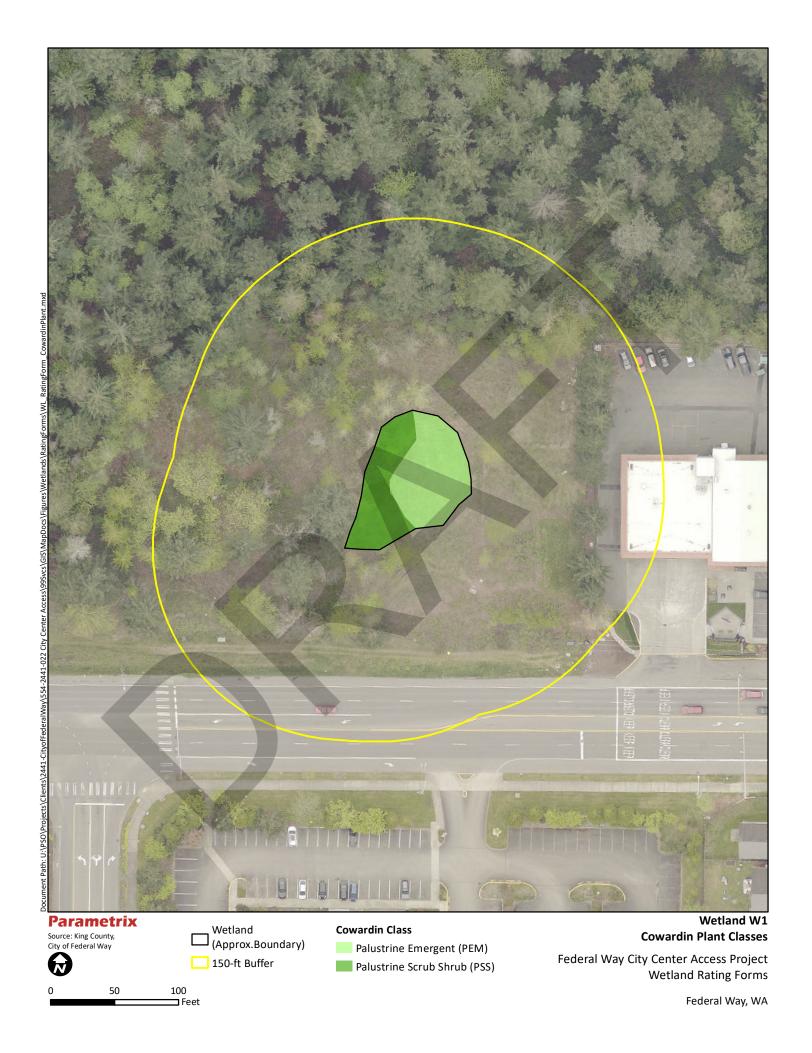
	Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
	Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
	Herbaceous Balds: Variable size patches of grass and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

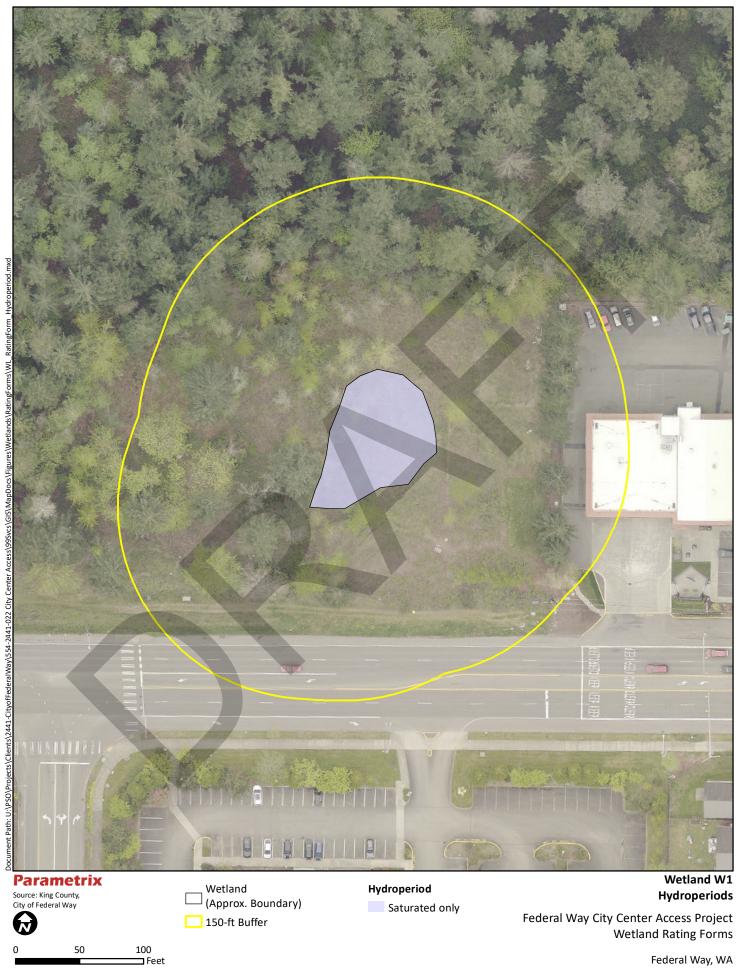
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

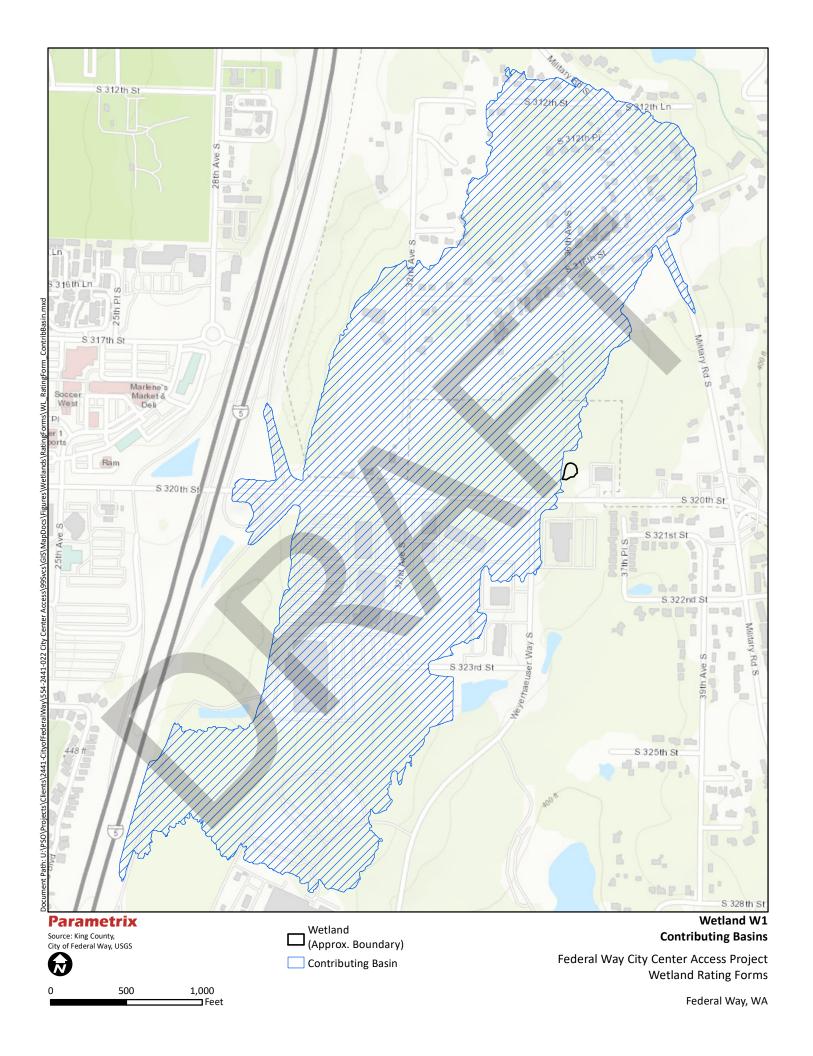
Wetland	Туре	Category
011		
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. E	Estuarine Wetlands	
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
0011	☐ Yes - Go to SC 1.1 ☑ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?	
00.4.0	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
22.2.2.1	☐ Yes = Category I ☐ No = Category II	
SC 2.0. V SC 2.1.	Vetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value? ☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
30 2.2.		
SC 2.2	☐ Yes = Category I ☐ No = Not WHCV Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
SC 2.3.		
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes - Contact WNHP/WDNR and to SC 2.4 No = Not WHCV	
CC 2 4	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
SC 2.4.	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E		
30 3.0.	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
30 3.1.	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
30 3.2.	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
00 0.0.	AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
0.7.	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	• • • • • • • • • • • • • • • • • • • •	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

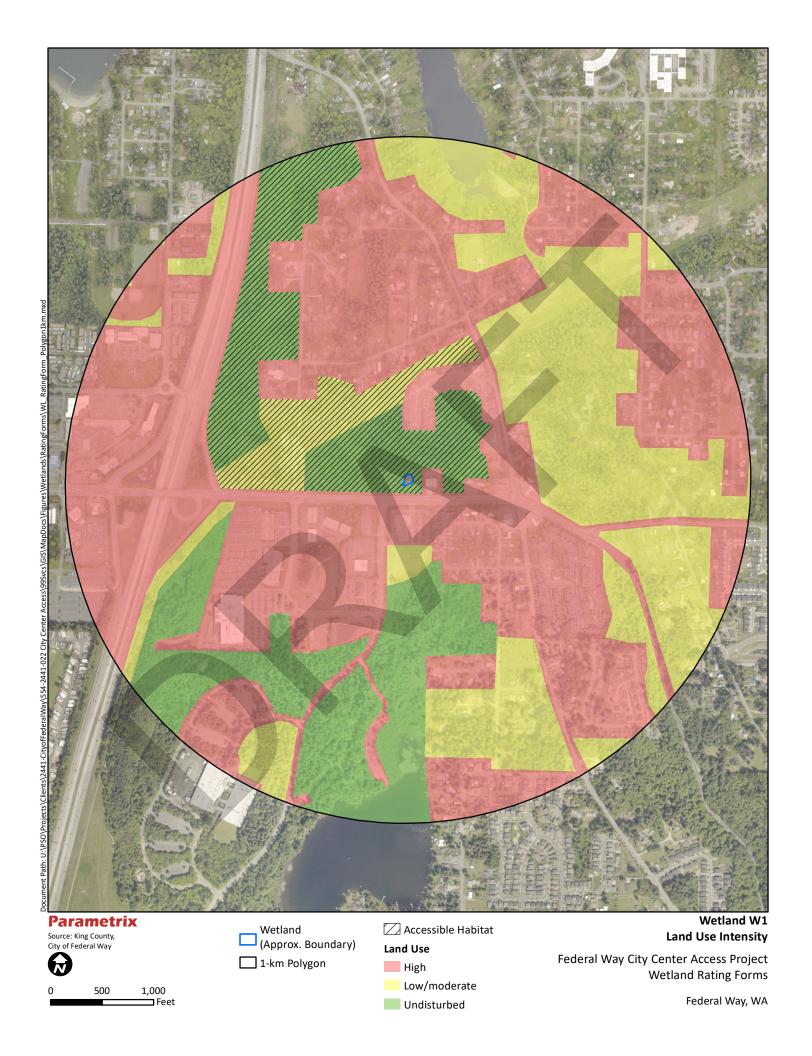
SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you	
	answer YES you will still need to rate the wetland based on its functions.	
	Old-growth forests (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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
-	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	be measured near the bottom)	
CC E 1	☐ 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 aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
	The wettand is larger than 7_{10} ac (4350 it) $\square \text{ Yes} = \text{Category I} \qquad \square \text{ No} = \text{Category II}$	
SC 6.0	Interdunal Wetlands	
0.0.	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	(rates H,H,H or H,H,M for the three aspects of function)?	
4	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
`	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
0.1	☐ Yes = Category III ☐ No = Category IV	
	ry of wetland based on Special Characteristics	
ır you ar	nswered No for all types, enter "Not Applicable" on Summary Form	

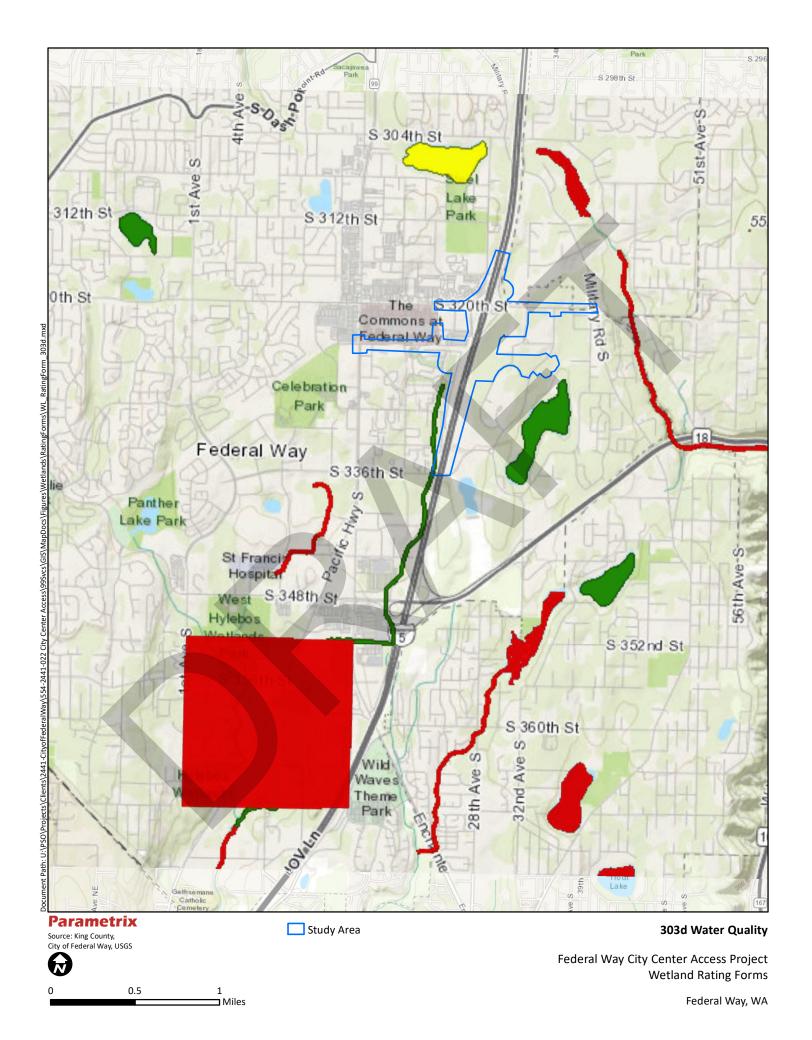




Federal Way, WA







RATING SUMMARY – Western Washington

Name of wetland (or I	D #): <u>W2</u>				Date of site visit:	7/18/2020
Rated by PJ, AT, MN	1	Trained by E	cology?⊡	Yes □ No	Date of training	Jun-14
HGM Class used for	rating Depression	nal & Flats	Wetland	d has multipl	e HGM classes? □	Yes ☑ No
	Source of base aer	· · · · · · · · · · · · · · · · · · ·			characteristics \(\preceq \)	
1. Category of w	etland based on	FUNCTIONS				
	Category I	- Total score = 23 - 27			Score for each	
-	Category 1	II - Total score = 20 - 22		1	function based	
_	Category I	II - Total score = 16 - 19			on three	
_	X Category I	IV - Total score = 9 - 15			ratings	
-					order of ratings	
FUNCTION	Improving	Hydrologic Habitat			is not	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	M	L	L	
Landscape Potential	M	M	L	
Value	M	M	М	Total
Score Based on Ratings	6	5	4	15

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	e water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 ppt (parts per thousand)?
V		Freshwater Tidal Fringe use the forms for Riverine wetlands. I stuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.
✓	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats in Flats wetland, use the form for Depressional wetlands.
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
▽	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i>). The water flows through the wetland may flow subsurface, as sheetflow, on The water leaves the wetland witho .	be very gradual), in one direction (unidirectional) and usually comes from seeps. I or in a swale without distinct banks.
V	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	from that stream or river,	nnel, where it gets inundated by overbank flooding
	The overbank flooding occurs at leas	
✓	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depressi	ons that are filled with water when the river is not flooding.

Wetland	name	or numb	er W2	

6. Is the entire wetland ur	nit in a topographic depressio	n in which water ponds,	, or is saturated to the surface, a	ıt
some time during the yea	r? This means that any outlet	, if present, is higher th	an the interior of the wetland.	

□ NO - go to 7 □ YES - The wetland class is **Depressional**

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

☑ NO - go to 8 ☐ **YES** - The wetland class is **Depressional**

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Wetland recieves water from overland flow which infiltrates into soil. No outlet was observed.

DEPRESSIONAL AND FLATS WETLA	ANDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly	points = 3	
constricted permanently flowing outlet. Use Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	3
that is permanently flowing ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shr	rub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	2
Wetland has persistent, ungrazed, plants > $\frac{1}{2}$ of area	points = 3	3
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area	points = 1	
Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description is	in manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	s in the boxes above	6
Rating of Site Potential If score is: 12-16 = H 2 6-11 = M 0-5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	0
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that	165 - 1 110 - 0	0
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		1
Source <u>Human waste</u>	Yes = 1 No = 0	
Total for D 2 Add the points	in the hoves above	2
	in the boxes above	
Rating of Landscape Potential If score is: ☐ 3 or 4 = H ☑ 1 or 2 = M ☐ 0 = L		
D 3.0. Is the water quality improvement provided by the site valuable to society?	Record the rating on	
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Record the rating on Yes = 1 No = 0	
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,	Record the rating on Yes = 1 No = 0	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	Record the rating on Yes = 1 No = 0 e 303(d) list?	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0 e 303(d) list? Yes = 1 No = 0	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for	Yes = 1 No = 0 e 303(d) list? Yes = 1 No = 0	the first page 0 1
D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	Yes = 1 No = 0 e 303(d) list? Yes = 1 No = 0	the first page 0 1

DEPRESSIONAL AND FLATS WETLANDS				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation				
D 4.0. Does the site have the potential to reduce flooding and erosion?				
D 4.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression with no surface water				
leaving it (no outlet) points = 4				
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2	4			
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	4			
permanently flowing ditch points = 1				
Wetland has an unconstricted, or slightly constricted, surface outlet				
that is permanently flowing points = 0				
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the				
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the				
deepest part.				
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7				
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0			
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3				
☐ The wetland is a "headwater" wetland points = 3				
Wetland is flat but has small depressions on the surface that trap water points = 1				
Marks of ponding less than 0.5 ft (6 in) points = 0				
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of				
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.				
☐ The area of the basin is less than 10 times the area of the unit points = 5	0			
The area of the basin is 10 to 100 times the area of the unit points = 3	-			
The area of the basin is more than 100 times the area of the unit points = 0				
☐ Entire wetland is in the Flats class points = 5				
Total for D 4 Add the points in the boxes above	4			
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page			
D 5.0. Does the landscape have the potential to support hydrologic function of the site?				
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	0			
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	0			
Yes = 1 No = 0				
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1			
Yes = 1 No = 0	ı			
Total for D 5 Add the points in the boxes above	1			
	trie iirst page			
D 6.0. Are the hydrologic functions provided by the site valuable to society?				
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best				
matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> score if more than one condition is met.				
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):				
Flooding occurs in a sub-basin that is immediately down-				
gradient of unit. points = 2				
Surface flooding problems are in a sub-basin farther down-	1			
gradient. points = 1				
☐ Flooding from groundwater is an issue in the sub-basin. points = 1				
☐ The existing or potential outflow from the wetland is so constrained				
by human or natural conditions that the water stored by the wetland				
cannot reach areas that flood. Explain why points = 0				
☐ There are no problems with flooding downstream of the wetland. points = 0				
D 6.2. Has the site been identified as important for flood storage or flood	0			
conveyance in a regional flood control plan? Yes = 2 No = 0	0			
Total for D 6 Add the points in the boxes above	1			
Rating of Value If score is: \square 2 - 4 = H \square 1 = M \square 0 = L Record the rating on	the first page			

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. □ Aquatic bed 4 structures or more: points = 4 □ Emergent 3 structures: points = 2 ☑ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). ☐ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☐ Seasonally flooded or inundated ☑ Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points □ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 25 - 19 species points = 1< 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 0 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
 □ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) □ Standing snags (dbh > 4 in) within the wetland 	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	1
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning	
(> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H	
1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	3
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
8 % undisturbed habitat + (3 % moderate & low intensity land uses / 2) = 9.5%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate:	
21 % undisturbed habitat + (23 % moderate & low intensity land uses / 2) = 32.5%	
<u> </u>	_
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	_
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above Rating of Landscape Potential If Score is: □ 4 - 6 = H □ 1 - 3 = M ☑ < 1 = L Record the rating on	-1
Rating of Landscape Potential II Score is: 4-6= H	trie iirst page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists) ☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	1
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = I Record the rating on	the first near

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. ☐ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

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

in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

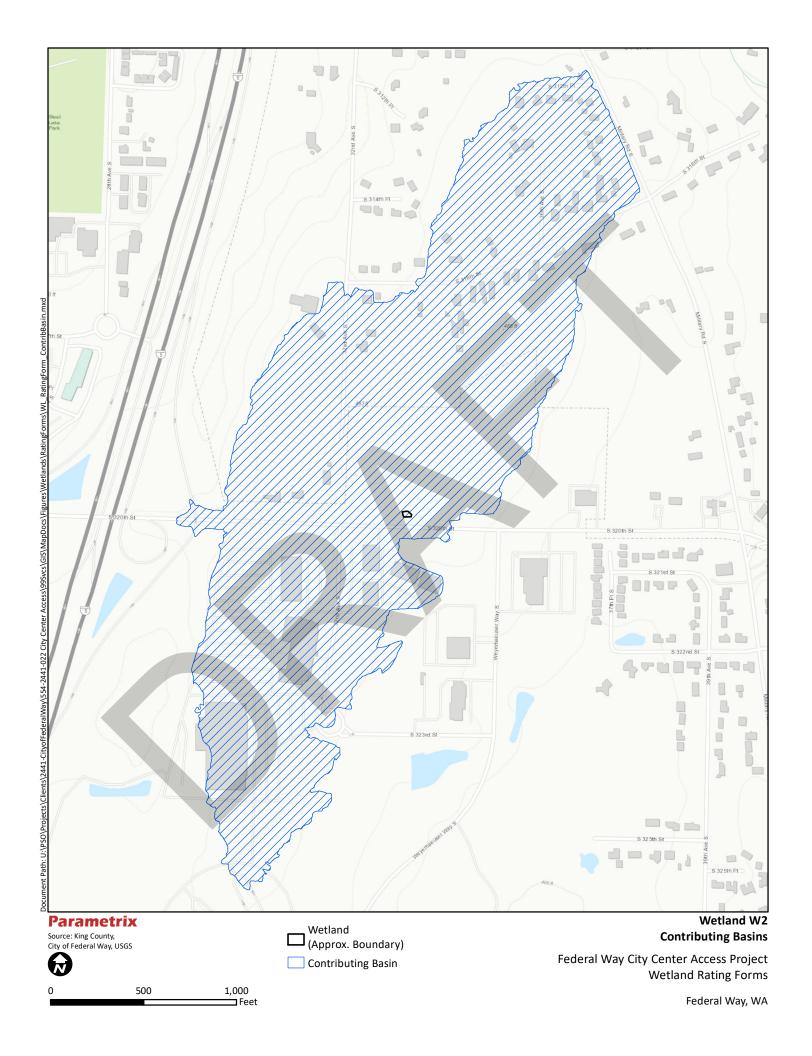
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

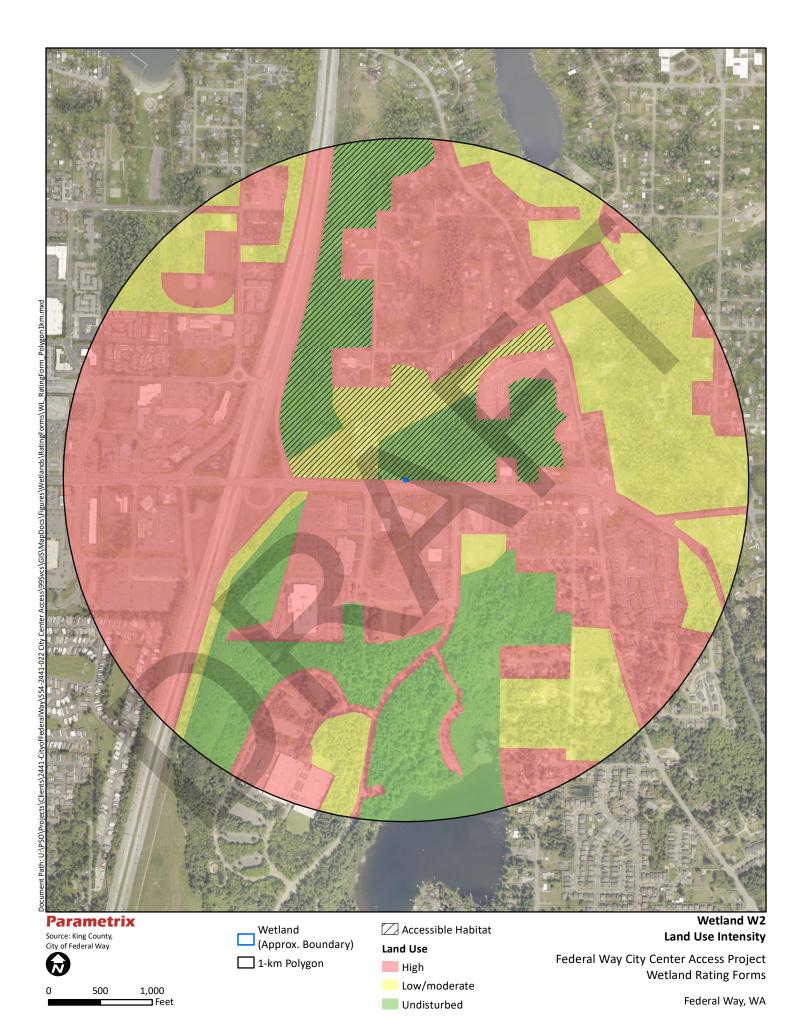
Wetland	Туре	Category		
Chaok of	Fany avitagia that annuly to the westland. List the appearance who appearance avitagia are mat			
Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met. SC 1.0. Estuarine Wetlands				
30 1.0.1	Does the wetland meet the following criteria for Estuarine wetlands?			
	The dominant water regime is tidal,			
	Vegetated, and			
	With a salinity greater than 0.5 ppt			
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland			
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,			
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve			
	designated under WAC 332-30-151?			
	☐ Yes = Category I ☐ No - Go to SC 1.2			
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?			
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,			
	and has less than 10% cover of non-native plant species. (If non-native species are			
	Spartina, see page 25)			
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-			
	grazed or un-mowed grassland.			
	The wetland has at least two of the following features: tidal channels, depressions with			
	open water, or contiguous freshwater wetlands.			
	☐ Yes = Category I ☐ No = Category II			
	Wetlands of High Conservation Value (WHCV)			
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of			
	Wetlands of High Conservation Value?			
SC 2.2.	☐ Yes - Go to SC 2.2 ☑ No - Go to SC 2.3			
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? ☐ Yes = Category I ☐ No = Not WHCV			
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?			
30 2.3.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf			
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☑ No = Not WHCV			
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation			
00 2.4.	Value and listed it on their website?			
	☐ Yes = Category I ☐ No = Not WHCV			
SC 3.0. I				
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in			
	bogs? Use the key below. If you answer YES you will still need to rate the wetland			
	based on its functions.			
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,			
	that compose 16 in or more of the first 32 in of the soil profile?			
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2			
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are			
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic			
	ash, or that are floating on top of a lake or pond?			
	□ Yes - Go to SC 3.3 \square No = Is not a bog			
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,			
	AND at least a 30% cover of plant species listed in Table 4?			
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4			
	NOTE: If you are uncertain about the extent of mosses in the understory, you may			
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at			
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,			
0004	the wetland is a bog.			
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,			
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,			
	or western white pine, AND any of the species (or combination of species) listed in Table			
	4 provide more than 30% of the cover under the canopy?			
	☐ Yes = Is a Category I bog ☐ No = Is not a bog			

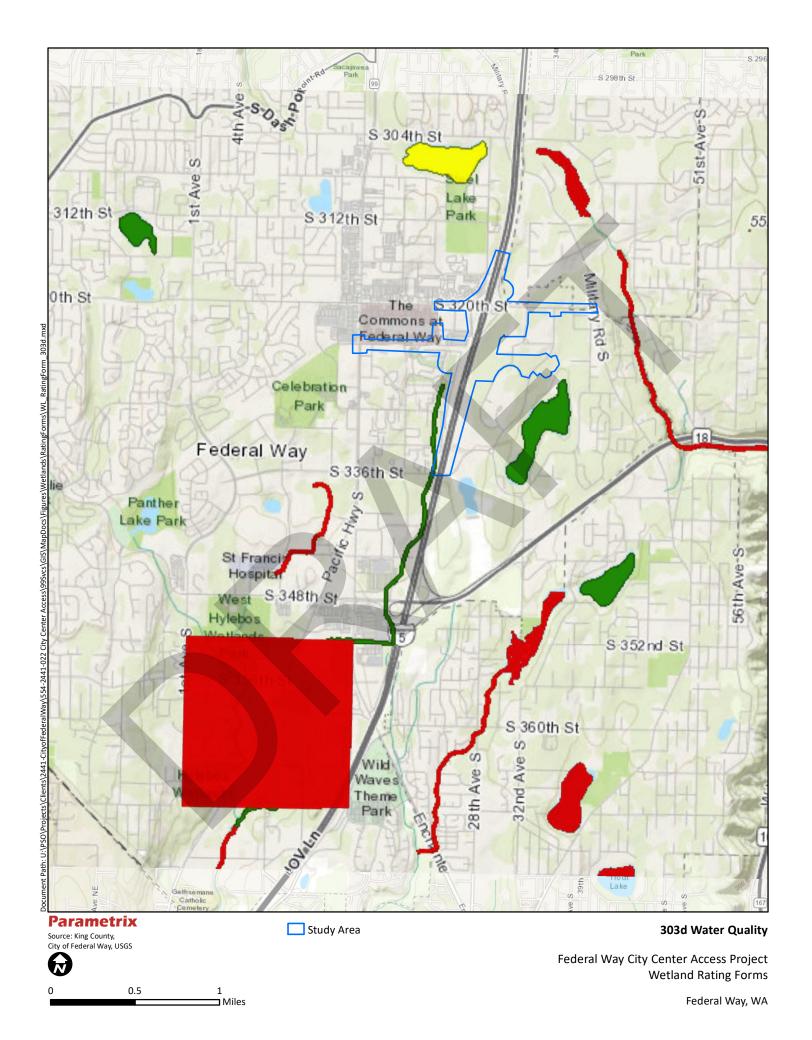
SC 4	Λ	Forested Wetlands	
3C 4			
		Does the wetland have at least 1 contiguous acre of forest that meets one of these	
		criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	_	answer YES you will still need to rate the wetland based on its functions.	
		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/ac (20	
		trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
		32 in (81 cm) or more.	
		Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
		years old OR the species that make up the canopy have an average diameter (dbh)	
		exceeding 21 in (53 cm).	
		☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5	.0. V	Wetlands in Coastal Lagoons	
		Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
		The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	_	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
		rocks	
		The lagoon in which the wetland is located contains ponded water that is saline or	
	_	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
		be measured near the bottom)	
		, and the second	
90 E	. 4 1		
SC 5		Does the wetland meet all of the following three conditions? The wetland is reletively undisturbed (hee no diliting distribute filling cultivation grazing)	
		The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
		and has less than 20% cover of aggressive, opportunistic plant species (see list of	
	_	species on p. 100).	
		At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	_	grazed or un-mowed grassland.	
		The wetland is larger than $^{1}/_{10}$ ac (4350 ft 2)	
		☐ Yes = Category I ☐ No = Category II	
SC 6	.O.	Interdunal Wetlands	
		Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
		Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
		based on its habitat functions.	
		In practical terms that means the following geographic areas:	
		Long Beach Peninsula: Lands west of SR 103	
		Grayland-Westport: Lands west of SR 105	
		Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	_	☐ Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating	
SC 6	1	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
,	7. 1.	(rates H,H,H or H,H,M for the three aspects of function)?	
		☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6	2	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
3C 0).Z.	□ Yes = Category II □ No - Go to SC 6.3	
000			
SC 6	0.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
ı		1 ac?	
		☐ Yes = Category III ☐ No = Category IV	
	_	y of wetland based on Special Characteristics	
It voi	ıan	swered No for all types, enter "Not Applicable" on Summary Form	1











RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>V</u>	V3					Date of site visit:	7/18	8/2020
Rated by Per Johns	on			Trained by	Ecology?	☑ Yes □ N	o Date of training	ng	2014
HGM Class used for	r rating _	epression	al & Flats		Wetlan	d has multip	ole HGM classes?	□∕es	□ю
NOTE: Fo		_	with out the al photo/map	_		figures can	be combined).		
OVERALL WETLA	ND CATE	GORY	III	(based on	functions	☑ specia	ll characteristics [
1. Category of w			FUNCTION: - Total score			ſ	Score for each		
			I - Total score				function based		
			II - Total scor				on three		
			V - Total scol				ratings		
		alegory i	v - Total Scol	e - 9 - 15			order of ratings		
	Impro	ovina	Hydrologic	Habitat			is not		
FUNCTION		Quality	Tiyurologic	Habitat			important)		
	Water		ropriate rating	(H M I)			important)		
Site Potential	N	Л	I I) (11, 1VI, L)			9 = H, H, H		
Landscape Potential		1	<u></u> Н				8 = H, H, M		
Value		/	M	L	Total		7 = H, H, L		
Score Based on	.,		IVI		Total		7 = H, M, M		
Ratings	7	7	6	3	16		6 = H, M, L		
J							6 = M, M, M		
							5 = H, L, L		
							5 = M, M, L		
							4 = M, L, L		
							3 = L, L, L		
		4				L.			

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

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

Are the water levels in the entire unit usually controlled by tides except during floods?						
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1				
1.1	Is the salinity of the water during per	iods of annual low flow below 0.5 ppt (parts per thousand)?				
		a Freshwater Tidal Fringe use the forms for Riverine wetlands. If stuarine wetland and is not scored. This method cannot be				
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.				
V	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.				
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;				
✓	NO - go to 4	□ YES - The wetland class is Lake Fringe (Lacustrine Fringe)				
▽	the entire wetland unit meet all of the The wetland is on a slope (slope can The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland without	be very gradual), in one direction (unidirectional) and usually comes from seeps. It or in a swale without distinct banks.				
✓	NO - go to 5	☐ YES - The wetland class is Slope				
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).				
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding				
	NO - go to 6	☐ YES - The wetland class is Riverine				
NOTE: T	he Riverine unit can contain depression	ons that are filled with water when the river is not flooding.				

6. Is the entire wetland unit	in a topographic depre	ession in which wa	ater ponds, or is	saturated to the surface	, at
some time during the year?	This means that anv	outlet, if present, is	s higher than the	e interior of the wetland.	

□ NO - go to 7	YES - The wetland class is Depressiona

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

□ NO - go to 8 □ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Wetland recieves water from overland flow which infiltrates into soil. No outlet was observed.

DEPRESSIONAL AND FLATS WETLA	<u>NDS</u>	
Water Quality Functions - Indicators that the site functions to im-	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key)		
with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		•
constricted permanently flowing outlet.	points = 2	3
☐ Wetland has an unconstricted, or slightly constricted, surface outlet	nainte 1	
that is permanently flowing	points = 1	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic	points :	
(use NRCS definitions).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru		
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	5
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < ¼ total area of wetland	points = 0	
	in the boxes above	8
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		4
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		1
Source <u>Human waste, roadside debris.</u>	Yes = 1 No = 0	
	in the boxes above	3
Rating of Landscape Potential If score is: 2 3 or 4 = H 1 or 2 = M 0 = L	Record the rating on	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	U
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	e 303(d) list?	1
	Yes = 1 No = 0	ı
D 3.3. Has the site been identified in a watershed or local plan as important for		
maintaining water quality (answer YES if there is a TMDL for the basin in which		0
the unit is found)?	Yes = 2 No = 0	
Total for D 3 Add the points	in the boxes above	1

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Rating of Value If score is:

2 - 4 = H

1 = M

0 = L

Record the rating on the first page

DEPRESSIONAL AND FLATS WETLANDS						
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra	adation					
D 4.0. Does the site have the potential to reduce flooding and erosion?						
D 4.1. Characteristics of surface water outflows from the wetland:						
Wetland is a depression or flat depression with no surface water						
leaving it (no outlet) points = 4						
Wetland has an intermittently flowing stream or ditch, OR highly						
constricted permanently flowing outlet points = 2	4					
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a						
permanently flowing ditch points = 1						
Wetland has an unconstricted, or slightly constricted, surface outlet						
that is permanently flowing points = 0 D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	1					
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the						
deepest part.						
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7						
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0					
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3						
☐ The wetland is a "headwater" wetland points = 3						
Wetland is a fleadwater wetland Wetland is flat but has small depressions on the surface that trap water points = 1						
Marks of ponding less than 0.5 ft (6 in)						
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of						
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.						
☐ The area of the basin is less than 10 times the area of the unit points = 5	1					
The area of the basin is 10 to 100 times the area of the unit points = 3	0					
The area of the basin is more than 100 times the area of the unit points = 0						
☐ Entire wetland is in the Flats class points = 5						
Total for D 4 Add the points in the boxes above	4					
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page					
D 5.0. Does the landscape have the potential to support hydrologic function of the site?						
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1					
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?						
Yes = 1 No = 0	1					
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land						
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1					
Yes = 1 No = 0						
Total for D 5 Add the points in the boxes above	3					
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on	the first page					
D 6.0. Are the hydrologic functions provided by the site valuable to society?						
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best						
matches conditions around the wetland unit being rated. Do not add points. Choose the highest						
score if more than one condition is met.						
The wetland captures surface water that would otherwise flow down-gradient into areas						
where flooding has damaged human or natural resources (e.g., houses or salmon redds):						
Flooding occurs in a sub-basin that is immediately down-						
gradient of unit. points = 2						
 Surface flooding problems are in a sub-basin farther down- 	1					
gradient. points = 1						
☐ Flooding from groundwater is an issue in the sub-basin. points = 1						
☐ The existing or potential outflow from the wetland is so constrained						
by human or natural conditions that the water stored by the wetland						
cannot reach areas that flood. Explain why points = 0						
☐ There are no problems with flooding downstream of the wetland. points = 0						
D 6.2. Has the site been identified as important for flood storage or flood						
conveyance in a regional flood control plan? Yes = 2 No = 0	0					
Total for D 6 Add the points in the boxes above	1					
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on	the first page					

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

Check the habital features that are present in the wetland. The number of checks is the number of points. Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	H 1.5. Special habitat features:	
points: Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.5 ft (10 m) over a stream (or ditch) in or contiguous with the wetlands or resent to the wetland area in every stream or present in areas that are permanently or seasonally invadated (structures for egg-laying by amphilipans) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Add the points in the boxes above 1.1 for list of strata Add the points in the boxes above 1.2 invasive plants (see H 1.2		
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Wetland Rating System for Western WA: 2014 Update Rating Form - Effective January 1, 2015

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

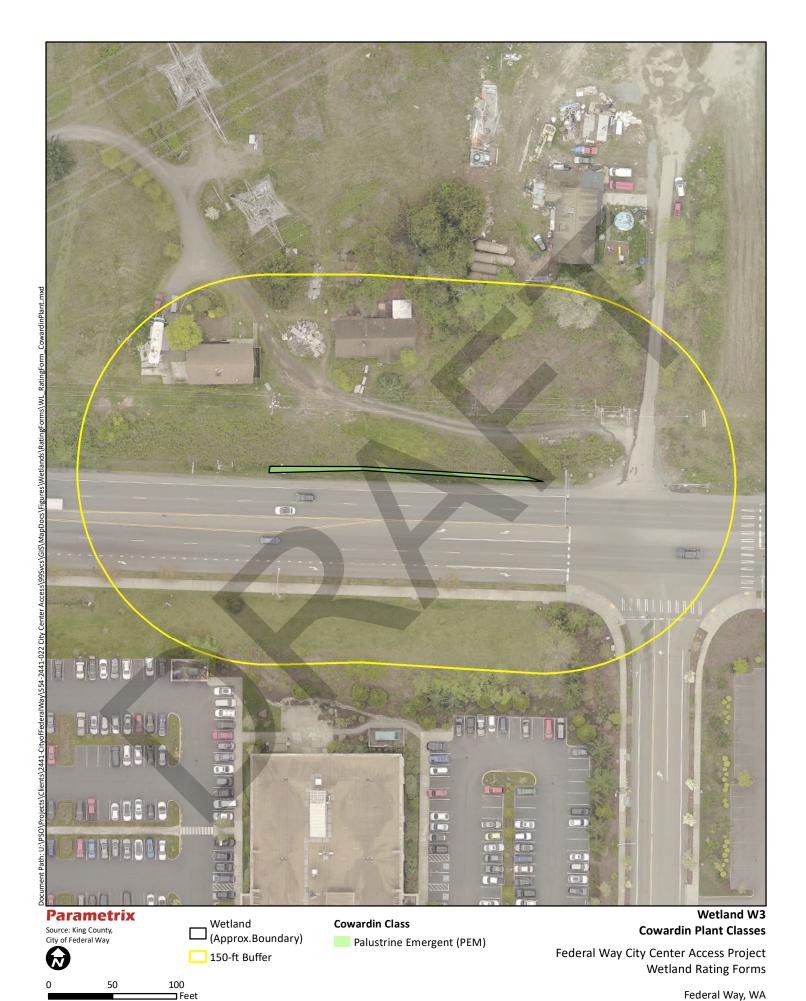
Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: **NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.

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

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

Wetland	Туре	Category		
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.			
SC 1.0. Estuarine Wetlands				
	Does the wetland meet the following criteria for Estuarine wetlands?			
	The dominant water regime is tidal,			
	Vegetated, and			
	With a salinity greater than 0.5 ppt			
00.4.4	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland			
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,			
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151?			
	□ Yes = Category I □ No - Go to SC 1.2			
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?			
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,			
	and has less than 10% cover of non-native plant species. (If non-native species are			
	Spartina, see page 25)			
	At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-			
	grazed or un-mowed grassland.			
	The wetland has at least two of the following features: tidal channels, depressions with			
	open water, or contiguous freshwater wetlands.			
	☐ Yes = Category I ☐ No = Category II			
	Wetlands of High Conservation Value (WHCV)			
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of			
	Wetlands of High Conservation Value? ☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3			
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?			
3C 2.2.	☐ Yes = Category I ☐ No = Not WHCV			
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?			
00 2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf			
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV			
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation			
	Value and listed it on their website?			
	☐ Yes = Category I ☐ No = Not WHCV			
SC 3.0. I				
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in			
	bogs? Use the key below. If you answer YES you will still need to rate the wetland			
	based on its functions.			
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,			
	that compose 16 in or more of the first 32 in of the soil profile?			
0000	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2			
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic			
	ash, or that are floating on top of a lake or pond?			
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog			
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,			
00 0.0.	AND at least a 30% cover of plant species listed in Table 4?			
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4			
	NOTE: If you are uncertain about the extent of mosses in the understory, you may			
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at			
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,			
	the wetland is a bog.			
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,			
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,			
	or western white pine, AND any of the species (or combination of species) listed in Table			
	4 provide more than 30% of the cover under the canopy?			
	☐ Yes = Is a Category I bog ☐ No = Is not a bog			

SC 4	LO.	Forested Wetlands	
		Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
		criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
		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/ac (20	
		trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
		32 in (81 cm) or more.	
		Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
		years old OR the species that make up the canopy have an average diameter (dbh)	
		exceeding 21 in (53 cm).	
		onessaming = 1 min (see simple	
		☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5	0	Wetlands in Coastal Lagoons	
		Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
		The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	_	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
		rocks	
		The lagoon in which the wetland is located contains ponded water that is saline or	
		brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
		be measured near the bottom)	
		☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
SC 5	5.1.	Does the wetland meet all of the following three conditions?	
		The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
		and has less than 20% cover of aggressive, opportunistic plant species (see list of	
		species on p. 100).	
		At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
		grazed or un-mowed grassland.	
		The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
		□ Yes = Category I □ No = Category II	
SC 6	5.0.	Interdunal Wetlands	
		Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
		Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
		based on its habitat functions.	
		In practical terms that means the following geographic areas:	
		Long Beach Peninsula: Lands west of SR 103	
		Grayland-Westport: Lands west of SR 105	
		Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
		☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6	3.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
		(rates H,H,H or H,H,M for the three aspects of function)?	
		☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6	3.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
		☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6	3.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
		1 ac?	
		☐ Yes = Category III ☐ No = Category IV	
Cate	gor	ry of wetland based on Special Characteristics	
	_	swered No for all types, enter "Not Applicable" on Summary Form	



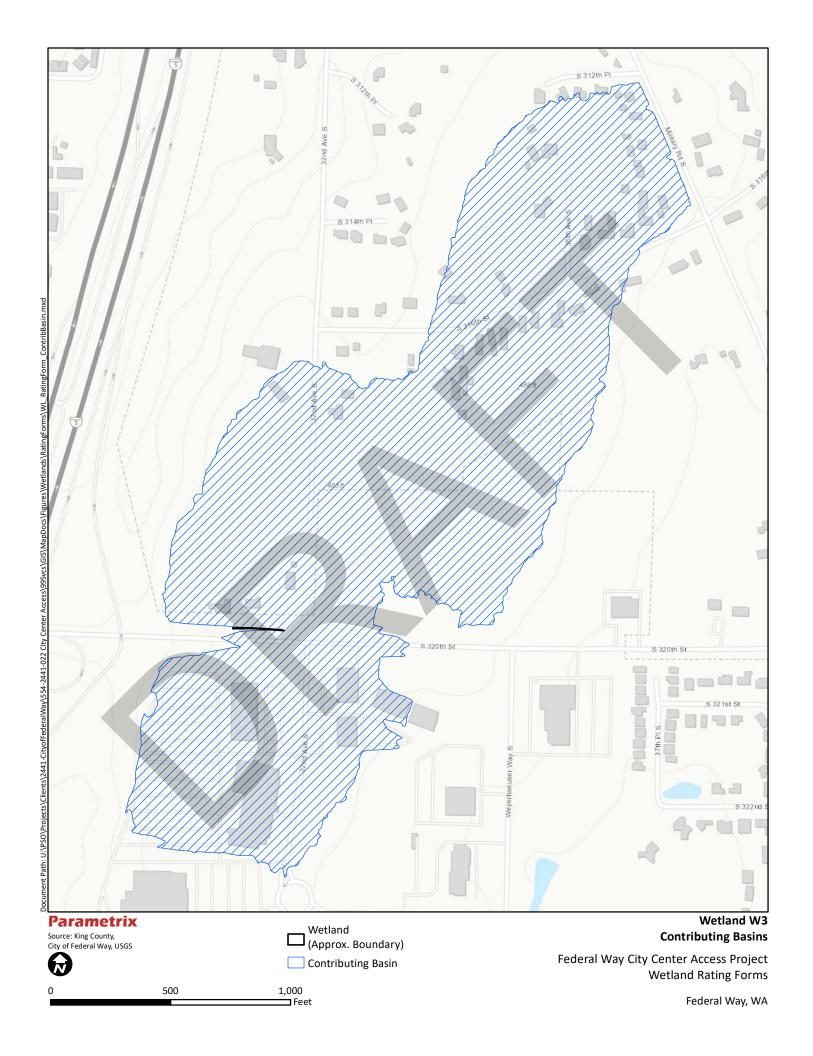
Federal Way, WA

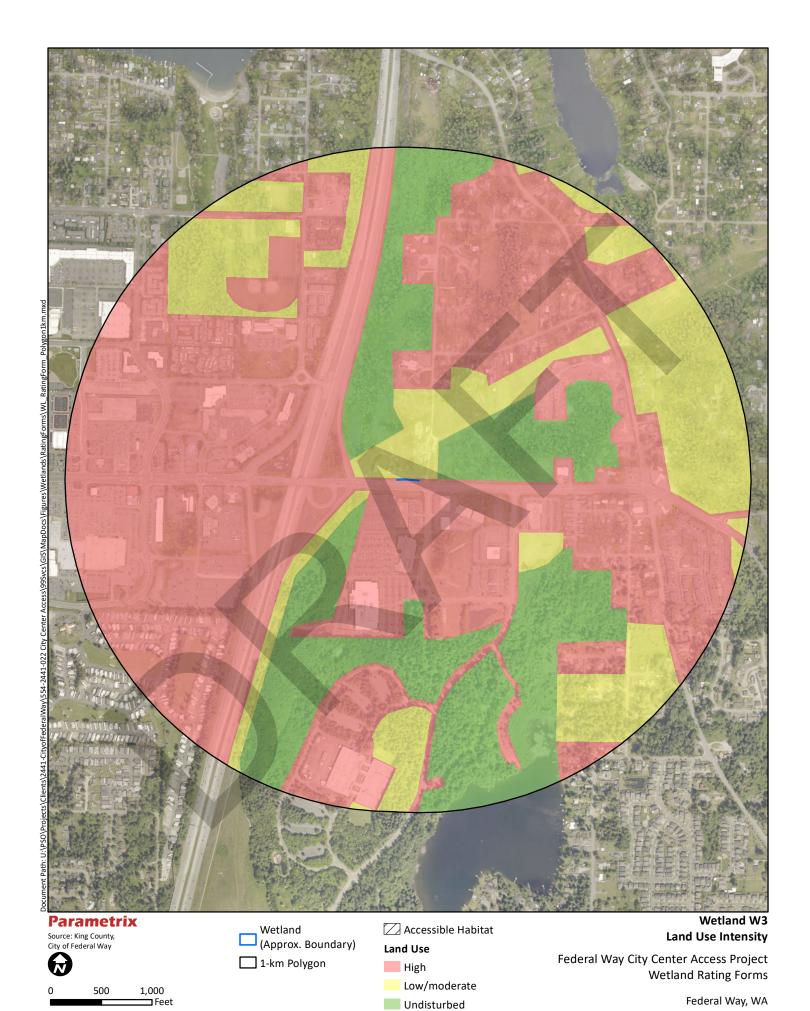


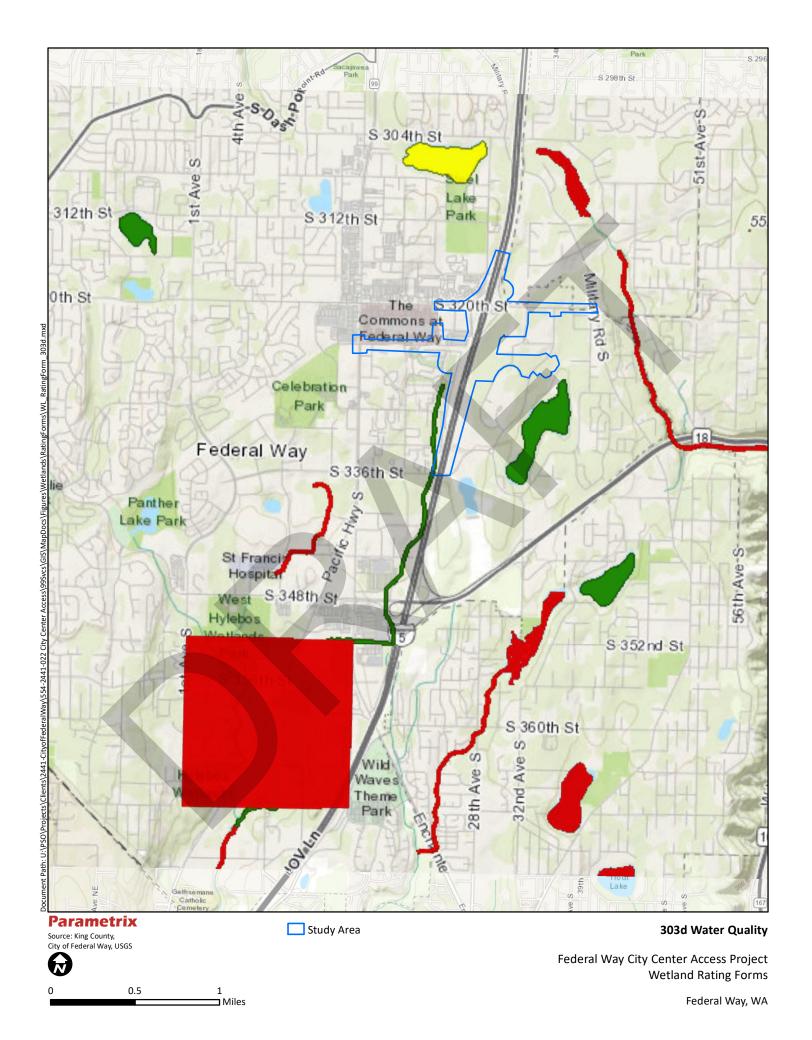
100 Feet 50

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA







RATING SUMMARY – Western Washington

Name of wetland (or I	D#): <u>W5</u>				Date	of site visit:	8/13/	2020
Rated by Per Johnson	on	Trained by Ec	ology? ☑	Yes□	No	Date of train <u>in</u>	ıg	2014
HGM Class used for	rating Depression	al & Flats	Wetland	has multi	ple HGM	classes? ☑	Yes	□No
	rm is not complete Source of base aeri	with out the figures re	equested (fig	gures car	n be comb	ined).		
OVERALL WETLAND CATEGORY II (based on functions ⊡r special characteristics □								
1. Category of w	etland based on	FUNCTIONS						
•		- Total score = 23 - 27			Score fo	or each		
X Category II - Total score = 20 - 22				function	based			
Category III - Total score = 16 - 19				on three	•			
Category IV - Total score = 9 - 15					ratings			
					(order of	ratings		
FUNCTION	Improving Water Quality	Hydrologic Habitat			is not importar	nt)		
	List app	ropriate rating (H, M, L)						

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	Н	M	Н	
Landscape Potential	Н	Н	L	
Value	M	M	М	Total
Score Based on Ratings	8	7	6	21

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	I
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	e water levels in the entire unit usuall	controlled by tides except during flo	oods?
V	NO - go to 2	☐ YES - the wetland class is Tidal	Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 pp	t (parts per thousand)?
	NO - Saltwater Tidal Fringe (Estual f your wetland can be classified as a it is Saltwater Tidal Fringe it is an Estused to score functions for estuarine	Freshwater Tidal Fringe use the for tuarine wetland and is not scored.	
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO		r to it.
V	NO - go to 3 If your wetland can be classified as a		vetland class is Flats pressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of the At least 30% of the open water area	on the shores of a body of permaner ne year) at least 20 ac (8 ha) in size;	
V	NO - go to 4	□ YES - The wetland class is Lake	Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i> The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland withous	be very gradual), in one direction (unidirectional) and in a swale without distinct banks.	usually comes from seeps. I
V	NO - go to 5	☐ YES - The w	retland class is Slope
	ourface water does not pond in these to ons or behind hummocks (depression		
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nel, where it gets inundated by over	bank flooding
V	NO - go to 6	☐ YES - The w	retland class is Riverine
NOTE: T	he Riverine unit can contain denression	ns that are filled with water when th	e river is not flooding

Wetland	name	or number	W5	

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

☑ NO - go to 7 ☐ YES - The wetland class is **Depressional**

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

☑ NO - go to 8
 ☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

There are portions of the unit that meet the riverine criteria, slope criteria, and depressional criteria, therefore the the HGM class used for this rating is depressional.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly	points = 3	
constricted permanently flowing outlet. □ Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	2
that is permanently flowing	points = 1	
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).	Yes = 4 No = 0	4
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shr	ub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	5
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/ ₁₀ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	2
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	13
Rating of Site Potential If score is:	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		•
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are	100 1 110 0	
not listed in questions D 2.1 - D 2.3?		1
Source Olympic pipeline, ROW treatment	Yes = 1 No = 0	•
Total for D 2 Add the points	in the boxes above	3
Rating of Landscape Potential If score is: 2 3 or 4 = H 1 or 2 = M 0 = L		the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		_
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the		
	Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for		
maintaining water quality (answer YES if there is a TMDL for the basin in which		0
the unit is found)?	Yes = 2 No = 0	
Total for D 3 Add the points	in the boxes above	1
Rating of Value If score is: □ 2-4=H ☑ 1=M □ 0=L		the first page

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra	idation
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water	
leaving it (no outlet) points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly	2
constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	2
• • • • • • • • • • • • • • • • • • • •	
permanently flowing ditch points = 1 Wetland has an unconstricted, or slightly constricted, surface outlet	
that is permanently flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the	
deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3
✓ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	
☐ The wetland is a "headwater" wetland points = 3	
Wetland is flat but has small depressions on the surface that trap water points = 1	
Marks of ponding less than 0.5 ft (6 in) points = 0	Ť
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
☐ The area of the basin is less than 10 times the area of the unit points = 5	_
The area of the basin is 10 to 100 times the area of the unit points = 3	5
The area of the basin is more than 100 times the area of the unit points = 0	
☐ Entire wetland is in the Flats class points = 5	
Total for D 4 Add the points in the boxes above	10
Rating of Site Potential If score is:	the first page
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1
Yes = 1 No = 0	l
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1
Yes = 1 No = 0	
Total for D 5 Add the points in the boxes above	
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 1 or 2 = M 1 or 2 = M 1 Record the rating on	3
Training of Earlaceape I sterillar in societies. Et a 11 E 1 of E in E 2 E 7100074 the rating of	
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
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These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. □ Aquatic bed 4 structures or more: points = 4 ☑ Emergent 3 structures: points = 2 ☑ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☑ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☑ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). ☐ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☑ Seasonally flooded or inundated 2 ☐ Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☑ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points □ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 25 - 19 species points = 1< 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 3 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
☑ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☑ Standing snags (dbh > 4 in) within the wetland	
☑ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	5
☐ 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 (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☑ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)	
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H	
1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	16
Rating of Site Potential If Score is: 15 - 18 = H	the inst page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
6 % undisturbed habitat + (2 % moderate & low intensity land uses / 2) = 7%	
7 dilusturbed flabitat + (2 / 1 floderate & low litterisity land uses / 2) - 1 / 1	
If total accessible, behitet in	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
20 % undisturbed habitat + (14 % moderate & low intensity land uses / 2) = 27%	
	1
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	
Rating of Landscape Potential If Score is: ☐ 4 - 6 = H ☐ 1 - 3 = M ☑ < 1 = L Record the rating on	
The state of the s	o ot page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☑ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is mapped as a location for an individual WDI W phonty species ☐ It is a Wetland of High Conservation Value as determined by the	1
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0 Rating of Value If Score is:	410 a 61 4
Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = I Record the rating on	THE TIPST NAME

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. ☐ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

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

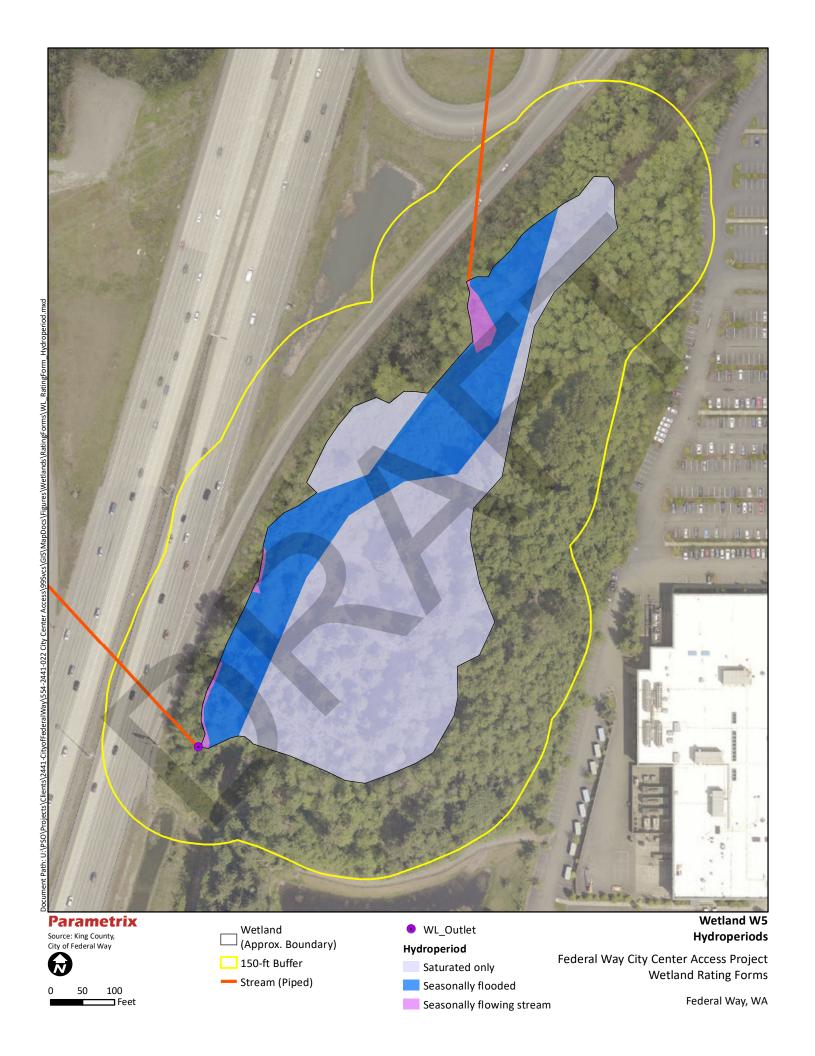
in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

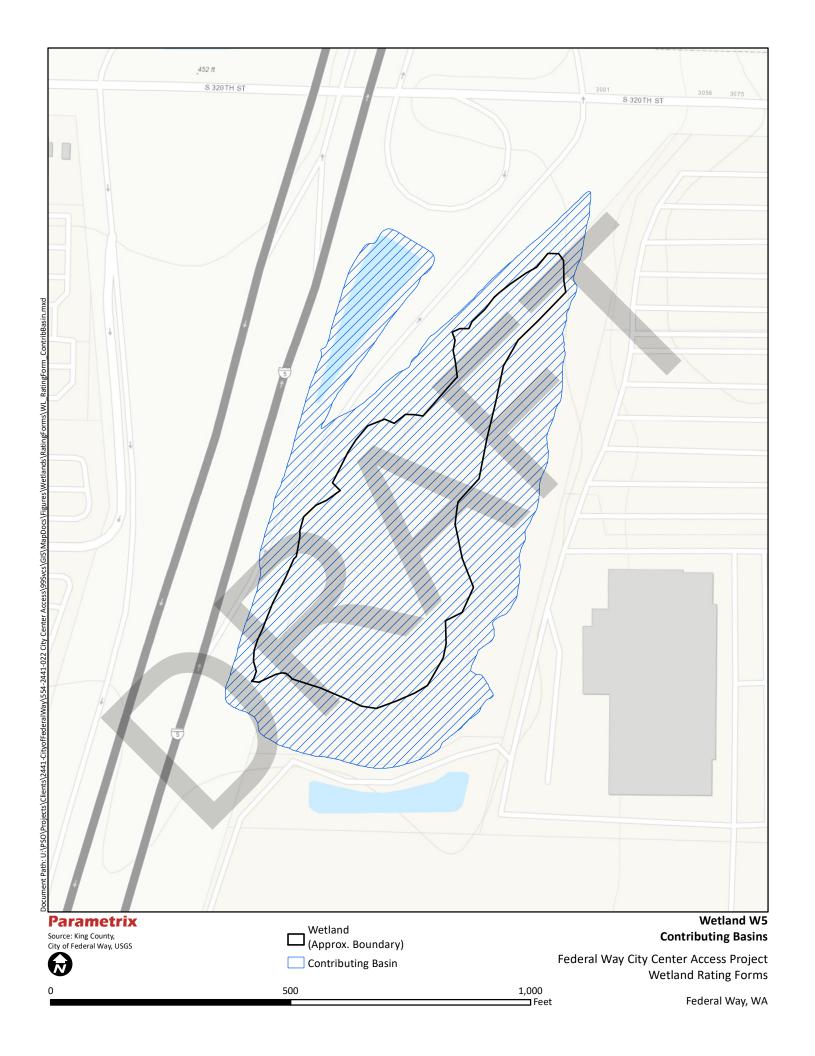
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

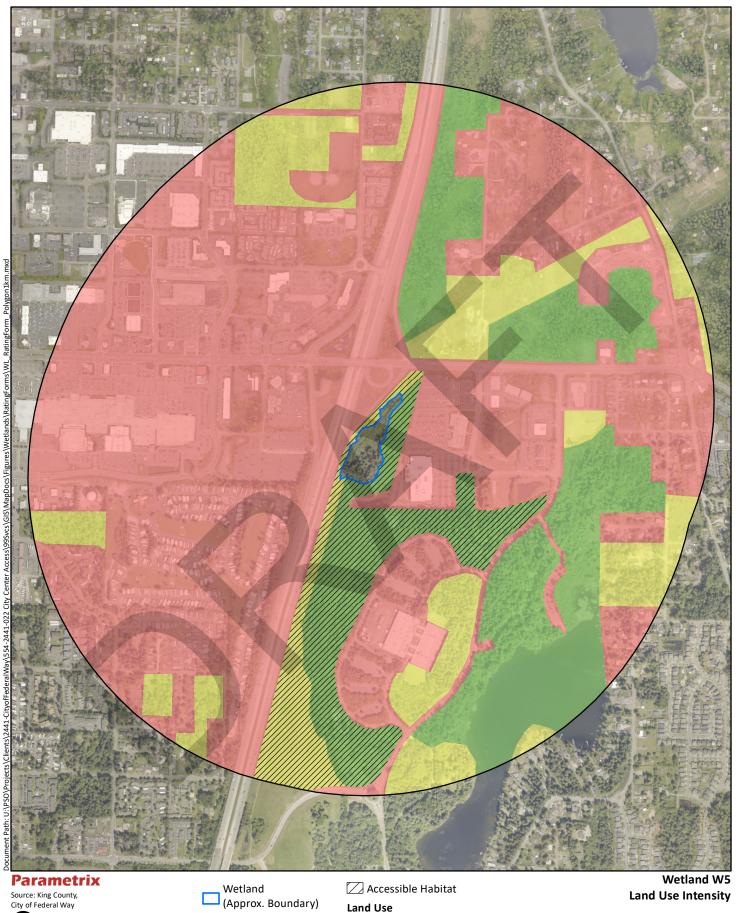
Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	stuarine Wetlands	
-	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☑ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
	☐ Yes = Category I ☐ No = Category II	
	Vetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value?	
0000	☐ Yes - Go to SC 2.2 ☑ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
0000	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
30 2.4.	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E		
00 0.0. 2	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☑ Yes - Go to SC 3.3 □ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
	AND at least a 30% cover of plant species listed in Table 4?	
	☑ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
00.5	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☑ Yes = Is a Category I bog ☐ No = Is not a bog	

SC 4.0.	Forested Wetlands	
OC	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	İ
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	ļ
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	ļ
	years old OR the species that make up the canopy have an average diameter (dbh)	ļ
	exceeding 21 in (53 cm).	ĺ
		ĺ
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	ĺ
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	ļ
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
_	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	be measured near the bottom)	, I
20.5.1	☐ Yes - Go to SC 5.1 ☑ No = Not a wetland in a coastal lagoon	ĺ
	Does the wetland meet all of the following three conditions? The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing)	1
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of	1
	species on p. 100).	1
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	1
_	grazed or un-mowed grassland.	1
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	1
-	The wetland is larger than 7 ₁₀ ac (4350 ft) ☐ Yes = Category I ☐ No = Category II	1
SC 6.0	Interdunal Wetlands	
SC 0.0.	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	1
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	İ
	based on its habitat functions.	İ
	In practical terms that means the following geographic areas:	1
	Long Beach Peninsula: Lands west of SR 103	İ
	Grayland-Westport: Lands west of SR 105	1
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	1
	☐ Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating	İ
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	İ
	(rates H,H,H or H,H,M for the three aspects of function)?	1
4	☐ Yes = Category I ☐ No - Go to SC 6.2	1
SC 6.2.		İ
	☐ Yes = Category II ☐ No - Go to SC 6.3	1
SC 6.3.		l
	1 ac?	1
	☐ Yes = Category III ☐ No = Category IV	
_	ry of wetland based on Special Characteristics	Cat. I
If you ar	nswered No for all types, enter "Not Applicable" on Summary Form	











1,000 Feet 500

1-km Polygon

Land Use

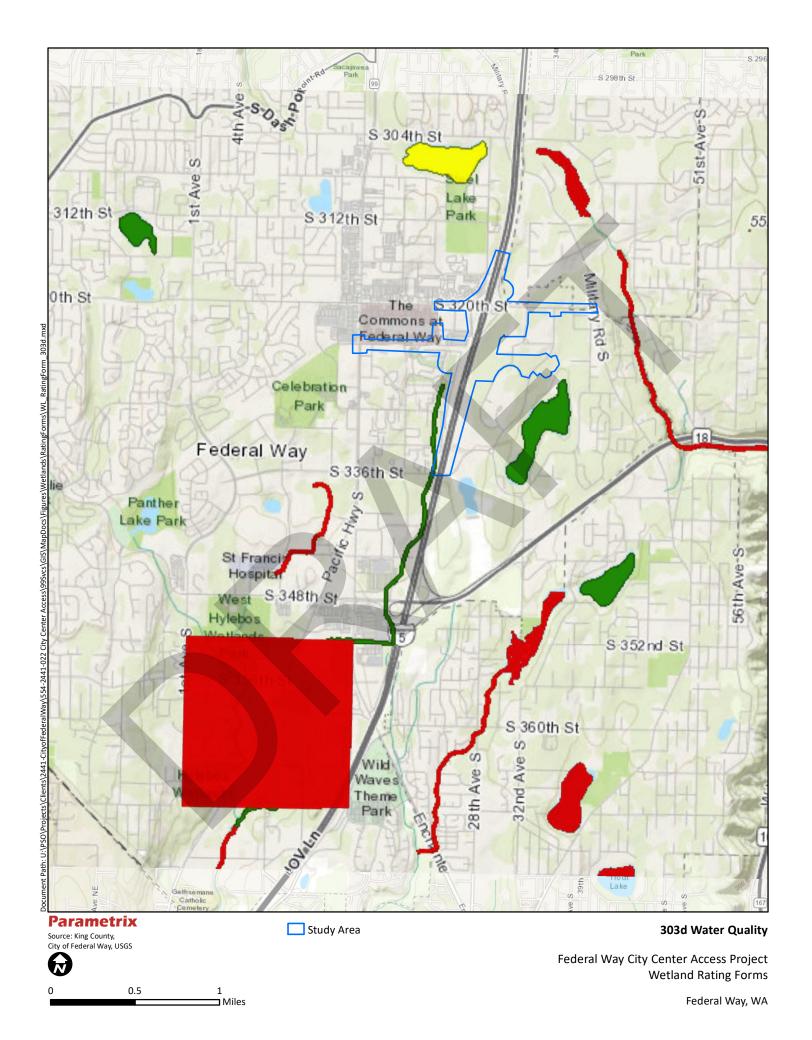
High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



Score Based on

Ratings

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>W</u> 6					Date of site visit:	8/18/2020
Rated by Per Johnson	on, Aaron Thom	Tra	ained by E	cology? ☑	Yes □ No	Date of training_	2014
HGM Class used for	rating Riverine &	Fresh Water	Tidal	Wetland	has multipl	e HGM classes? ☐ \	∕es □ No
	rm is not complete		_	quested (figures can	be combined).	
	Source of base aer	iai pnoto/map					
OVERALL WETLAND CATEGORY III (based on functions ☑ or special characteristics □)							
i. Category or w	etland based on	- Total score			Г	Score for each	
-		II - Total score				function based	
-		III - Total score				on three	
-		I V - Total scor				ratings	
-	Oategory	IV - 10tal 3001	0 - 3 - 13			(order of ratings	
	Improving	Hydrologic	Habitat			is not	
FUNCTION	Water Quality	,	1			important)	
List appropriate rating (H, M, L)							
Site Potential	M	М	L			9 = H, H, H	
Landscape Potential	H	M	L			8 = H, H, M	
Value	L	M	М	Total		7 = H, H, L	

M

1

4

16

7 = H, M, M

6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L 4 = M, L, L3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

6

6

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides e	xcept during floods?
V	NO - go to 2	☐ YES - the wetland	d class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow	v below 0.5 ppt (parts per thousand)?
		Freshwater Tidal Frii Stuarine wetland and	YES - Freshwater Tidal Fringe nge use the forms for Riverine wetlands. It is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO		
V	NO - go to 3 If your wetland can be classified as a		☐ YES - The wetland class is Flats are form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a boo he year) at least 20 ac	
V	NO - go to 4	□ YES - The wetlan	d class is Lake Fringe (Lacustrine Fringe)
✓	the entire wetland unit meet all of the The wetland is on a slope (slope can The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland without	be very gradual), in one direction (unidion in a swale without d	
✓	NO - go to 5		YES - The wetland class is Slope
	ourface water does not pond in these to one or behind hummocks (depression		ot occasionally in very small and shallow meter and less than 1 ft deep).
✓	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inu	ndated by overbank flooding
	NO - go to 6	Ē	☑ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain denressi	ons that are filled with	water when the river is not flooding

Wetland	name or number	W6	
vveuana	name or number	VVO	

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? This means that any outlet, if present, is higher than the interior of the wetland.		
□ NO - go to 7	☐ YES - The wetland class is Depressional	
7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.		
□ NO - go to 8	☐ YES - The wetland class is Depressional	

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

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

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

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

NOTES and FIELD OBSERVATIONS:

W6 has a culvert inlet and and culvert/stream outlet. The assosiated stream runs though Belmor mobile home and golf park.

DIVEDING AND EDGLINATED TIDAL EDING	TWEET ANDS	
RIVERINE AND FRESHWATER TIDAL FRINGI Water Quality Functions - Indicators that the site functions to im		- '
R 1.0. Does the site have the potential to improve water quality?	provo mator quanty	
R 1.1. Area of surface depressions within the Riverine wetland that can trap see	diments during a	
flooding event:	ŭ	
Depressions cover > 3/4 area of wetland	points = 8	3
Depressions cover > ½ area of wetland	points = 4	4
Depressions present but cover < 1/2 area of wetland	tland points =	
No depressions present	points = 0	ó
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, not Cowardin		
classes)		
Trees or shrubs > ² / ₃ area of the wetland	points = 8	3
☐ Trees or shrubs > ¹/₃ area of the wetland	points = 6	6
\Box Herbaceous plants (> 6 in high) > 2 / $_3$ area of the wetland	points = 6	5
Herbaceous plants (> 6 in high) > 1/3 area of the wetland	points = 3	3
Trees, shrubs, and ungrazed herbaceous $< \frac{1}{3}$ area of the wetland	points = (
Total for R 1 Add the points	in the boxes above	10
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating of	n the first page
R 2.0. Does the landscape have the potential to support the water quality functi	on of the site?	
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0) 2
R 2.2. Does the contributing basin to the wetland include a UGA or	165 2 110 - 0	,
incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields,		0
pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that		1
generate pollutants?	Yes = 1 No = 0	
R 2.5. Are there other sources of pollutants coming into the wetland that are		
not listed in questions R 2.1 - R 2.4?		0
Other Sources	Yes = 1 No = 0	
	in the boxes above	
Rating of Landscape Potential If score is: $\ \ \ \ \ \ \ \ $	Record the rating of	n the first page
R 3.0. Is the water quality improvement provided by the site valuable to society	?	
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a		
tributary that drains to one within 1 mi?	Yes = 1 No = 0	0
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients,		0
toxics, or pathogens?	Yes = 1 No = 0	
R 3.3. Has the site been identified in a watershed or local plan as important for		
maintaining water quality? (answer YES if there is a TMDL for the drainage in		0
which the unit is found)	Yes = 2 No = 0	
Total for R 3 Add the points	in the boxes above	0

Rating of Value If score is: \Box 2 - 4 = H \Box 1 = M

Record the rating on the first page

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS			
Hydrologic Functions - Indicators that site functions to reduce flooding and stream erosion			
R 4.0. Does the site have the potential to reduce flooding and erosion?			
R 4.1. Characteristics of the overbank storage the wetland provides:			
Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).			
If the ratio is more than 20 points = 9	2		
If the ratio is 10 - 20 points = 6			
If the ratio is 5 - < 10 points = 4			
If the ratio is 1 - < 5 points = 2			
If the ratio is < 1 points = 1			
R 4.2. Characteristics of plants that slow down water velocities during floods: <i>Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes)</i> . Forest or shrub for $> \frac{1}{3}$ area OR emergent plants $> \frac{2}{3}$ area points = 7	4		
Forest or shrub for $> \frac{1}{10}$ area OR emergent plants $> \frac{1}{3}$ area points = 4	_		
Plants do not meet above criteria points = 0			
Total for R 4 Add the points in the boxes above	6		
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on the first page			
R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?			
R 5.1. Is the stream or river adjacent to the wetland downcut? Yes = 0 No = 1	1		
R 5.2. Does the up-gradient watershed include a UGA or incorporated area? Yes = 1 No = 0	1		
R 5.3 Is the up-gradient stream or river controlled by dams? Yes = 0 No = 1	0		
Total for R 5 Add the points in the boxes above	2		
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on the first particles.			
R 6.0. Are the hydrologic functions provided by the site valuable to society?			
R 6.1. Distance to the nearest areas downstream that have flooding problems?			
Choose the description that best fits the site.			
The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) points = 2	1		
Surface flooding problems are in a sub-basin farther down-gradient points = 1			
No flooding problems anywhere downstream points = 0			
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan? Yes = 2 No = 0	0		
Total for R 6 Add the points in the boxes above	1		
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on			

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ☐ Aquatic bed 4 structures or more: points = 4 1 ☑ Emergent 3 structures: points = 2 ☑ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or 1/4 ac to count (see text for descriptions of hydroperiods). ☐ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☑ Seasonally flooded or inundated ☐ Occasionally flooded or inundated 2 types present: points = 1 □ Saturated only 1 types present: points = 0 ☑ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points ☐ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle 1 If you counted: > 19 species points = 25 - 19 species points = 1 < 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 2 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points

LI 1.5. Chasial habitat factures:	
H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☐ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends	
at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at	á
least 33 ft (10 m)	1
☐ 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 (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see	
H 1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	6
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 0 - 6 = L Record the rating on	the first page
	, ,
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0%	
(
If total accessible habitat is:	0
	Ü
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
13 % undisturbed habitat + (13 % moderate & low intensity land uses / 2) = 19.5%	
	1
Undisturbed habitat > 50% of Polygon points = 3	•
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1km Polygon is high intensity points = 0	_
Total for H 2 Add the points in the boxes above	-1
Rating of Landscape Potential If Score is: ☐ 4 - 6 = H ☐ 1 - 3 = M ☑ < 1 = L Record the rating on	
Rating of Landscape Potential in Occite is. 4-0-11 1-3-14 1-3-14 1-1-12 Necord the rating of	ine msi page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	1
☐ It is a Wetland of High Conservation Value as determined by the	
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = I Record the rating on	the first nego

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). ☐ Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). ☐ **Herbaceous Balds**: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest - Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. □ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aguatic and terrestrial ecosystems which mutually influence each other. ☐ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. □ Cliffs: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. □ Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Chook off	Fany aritaria that apply to the walland. List the actoriary when the appropriate criteria are mot	
	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. I	Does the wetlands Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
00 1.1.	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	□ Yes = Category I □ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least 3/4 of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	*
	open water, or contiguous freshwater wetlands.	
	☐ Yes = Category I ☐ No = Category II	
	Netlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☑ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
00 0 4	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. I		
30 3.0. 1	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation	
	in bogs? Use the key below. If you answer YES you will still need to rate the	
	wetland based on its functions	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
00000	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
	level, AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann	
	spruce, or western white pine, AND any of the species (or combination of species) listed	
	in Table 4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

Does the wetland have at least 1_continuous_acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? If you answer YES you will still need to rate the wetland based on its functions. □ Old-growth forests (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. □ Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). □ Yes = Category I □ No = Not a forested wetland for this section SC 5.0. Wetlands in Coastal Lagoons □ Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? □ The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks □ The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) □ Yes - Go to SC 5.1 □ No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? □ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). □ At least % 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 ac (4350 ft²) □ Yes = Category I □ No = Category II SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the	SC 4.0.	Forested Wetlands	
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separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes - Go to SC 5.1 No = Not a wetland in a coastal lagoon SC 5.1. Does the wetland meet all of the following three conditions? The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). At least 3⁄2 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 ac (4350 ft²) Yes = Category I No = Category II SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions. In practical terms that means the following geographic areas: Long Beach Peninsula: Lands west of SR 103 Grayland-Westport: Lands west of SR 105 Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes - Go to SC 6.1 No = Not an interdunal wetland for rating SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = Category I No - Go to SC 6.2 SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = Category II No - Go to SC 6.3 SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = Category III No - Category IV		Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
rocks The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to be measured near the bottom) Yes - Go to SC 5.1		The wetland lies in a depression adjacent to marine waters that is wholly or partially	
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Category of wetland based on Special Characteristics			
	Catego		
	_		



Source: King County, City of Federal Way



100 **⊐** Feet ☐ (Approx.Boundary)

150-ft Buffer

Cowardin Class

Palustrine Emergent (PEM)

Palustrine Scrub Shrub (PSS)

Cowardin Plant Classes

Federal Way City Center Access Project Wetland Rating Forms





100 **⊐** Feet Wetland (Approx. Boundary)

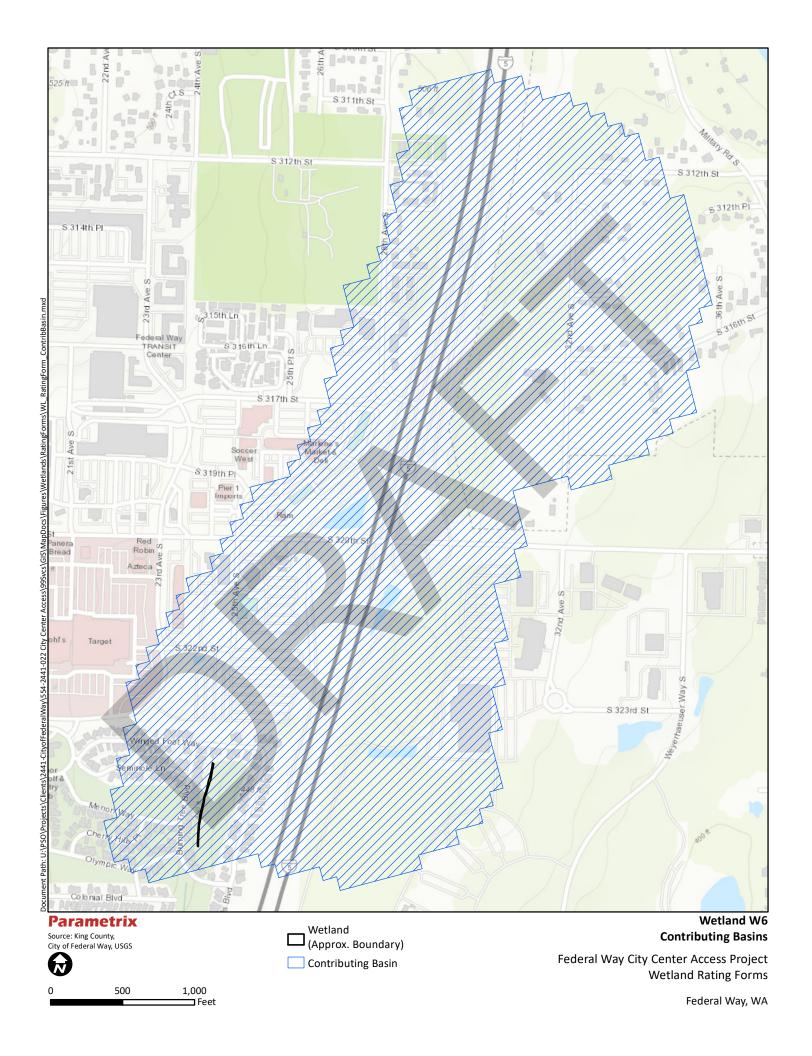
150-ft Buffer

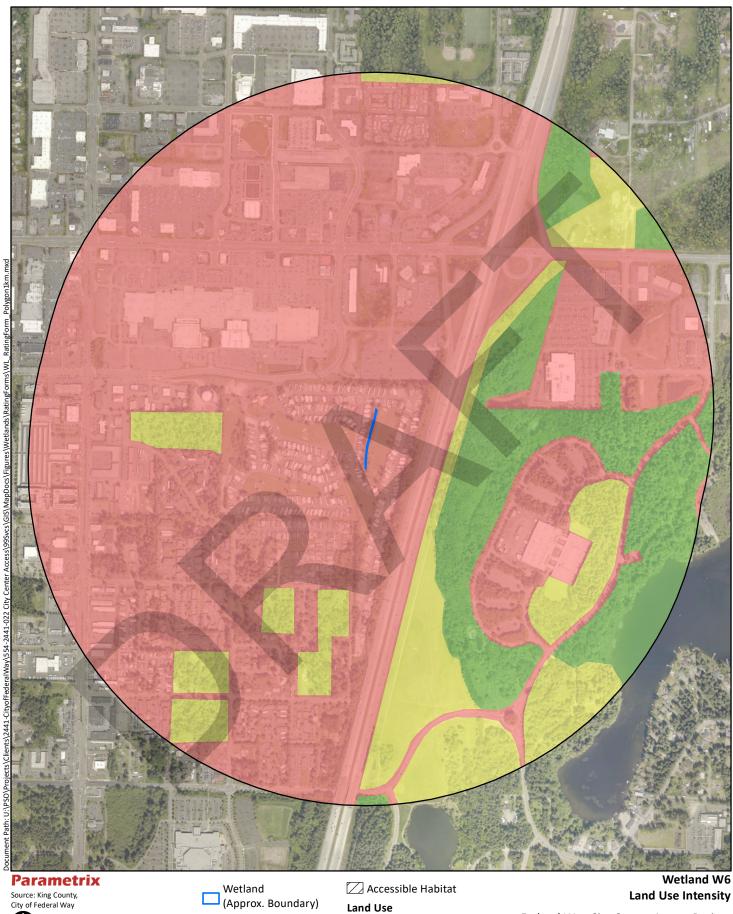
Stream (Piped)

Seasonally flooded

Hydroperiods

Federal Way City Center Access Project
Permanently flowing stream Wetland Rating Forms





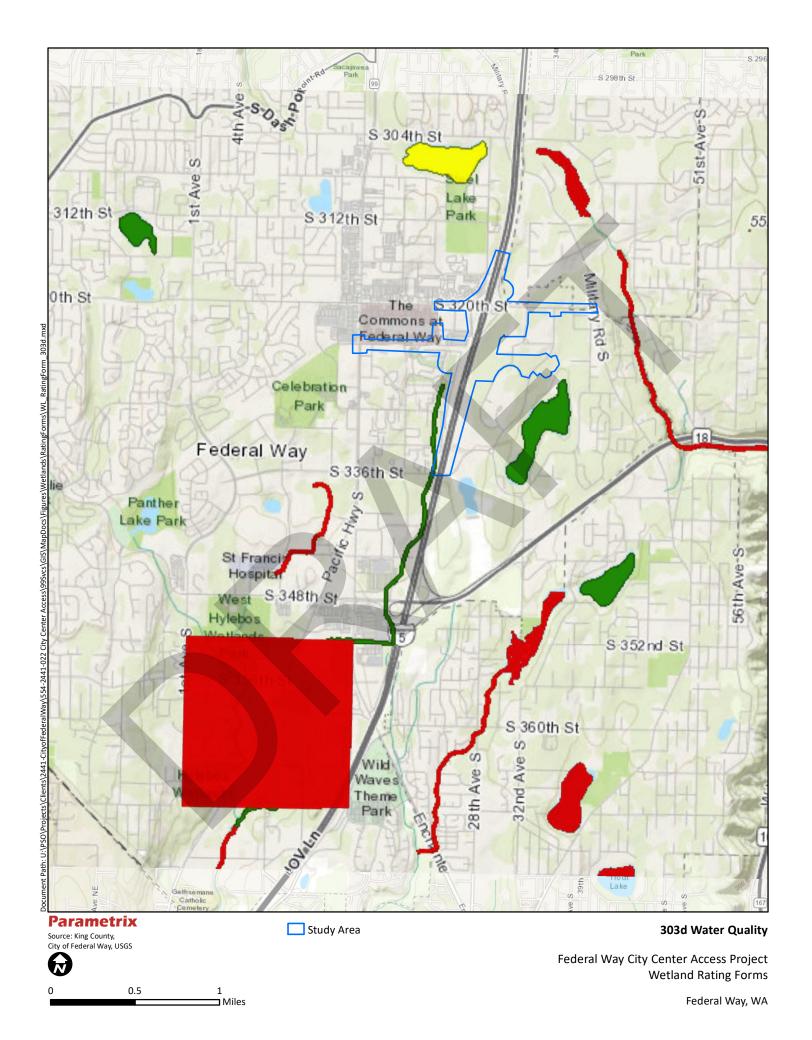
0 500 1,000 Feet 1-km Polygon

High

Low/moderate
Undisturbed

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>W</u> 7			D:	ate of site visit:	8/18/2020
Rated by Per Johns	on, Aaron Thom	Trained by E	cology?⊡ Yes □	No	Date of training	g 2014
HGM Class used for	rating Depression	nal & Flats	Wetland has m	ultiple HC	GM classes?□	Yes ☑ No
	rm is not complete Source of base aer	e with out the figures re	equested (figures o	an be co	mbined).	
OVERALL WETLA	ND CATEGORY	(based on	functions 🗹 or spe	ecial char	racteristics)	
1. Category of w	etland based on	FUNCTIONS				
	Category	I - Total score = 23 - 27		Scor	e for each	*
	Category	II - Total score = 20 - 22		funct	ion based	
•	Category	III - Total score = 16 - 19		on th	ree	
•	X Category	IV - Total score = 9 - 15		rating	gs	
•				(orde	r of ratings	
FUNCTION	Improving	Hydrologic Habitat		is not		
FUNCTION	Water Quality			imno	tant\	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	M	L	L	
Landscape Potential	M	Н	L	
Value	L	L	L	Total
Score Based on Ratings	5	5	3	13

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides	except during floods?
V	NO - go to 2	□ YES - the wetla	nd class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	iods of annual low fl	ow below 0.5 ppt (parts per thousand)?
	•	a Freshwater Tidal F stuarine wetland an	☐ YES - Freshwater Tidal Fringe iringe use the forms for Riverine wetlands. It is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO		
V	NO - go to 3 If your wetland can be classified as a	a Flats wetland, use	☐ YES - The wetland class is Flats the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a b he year) at least 20	
V	NO - go to 4	☐ YES - The wetla	and class is Lake Fringe (Lacustrine Fringe)
▽	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i> The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland withous	be very gradual), in one direction (un or in a swale without	
	NO - go to 5		☐ YES - The wetland class is Slope
	ourface water does not pond in these to bons or behind hummocks (depression		ept occasionally in very small and shallow ameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at least	nnel, where it gets ir	·
	NO - go to 6		☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depression	ons that are filled wi	th water when the river is not flooding.

Wetland	name	or number	W7	
vvellanu	Hallie	oi iiuiiibei	V V /	

	nic depression in which water ponds, or is saturated to the surface, at nat any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☑ YES - The wetland class is Depressional
	ery flat area with no obvious depression and no overbank flooding? The an a few inches. The unit seems to be maintained by high groundwater but has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Wetland W7 recieves water from overland flow, its outlet is a stormwater catchbasin on the west shoulder of southbound I-5.

DEPRESSIONAL AND FLATS WETLA	ANDS	
Water Quality Functions - Indicators that the site functions to in	mprove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly	points = 3	
constricted permanently flowing outlet. Use Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	2
that is permanently flowing ☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	points = 1	
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-sh	rub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	5
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area	points = 1	*
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description	in manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	s in the boxes above	7
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality funct	ion of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	
Total for D 2 Add the point	s in the boxes above	2
Rating of Landscape Potential If score is: ☐ 3 or 4 = H ☑ 1 or 2 = M ☐ 0 = I	Record the rating on	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society	?	
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		_
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the		
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	ne 303(d) list? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for	ne 303(d) list? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which	ne 303(d) list? Yes = 1 No = 0	
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for	ne 303(d) list? Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	ne 303(d) list? Yes = 1 No = 0	0 0

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degrad	dation
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water	
leaving it (no outlet) points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly	
constricted permanently flowing outlet points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	
permanently flowing ditch Notational become proteined and similarly constricted assignments = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0	
that is permanently flowing points = 0 D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	_
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the	
deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3
✓ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	
☐ The wetland is a "headwater" wetland points = 3	
Wetland is flat but has small depressions on the surface that trap water points = 1	
Marks of ponding less than 0.5 ft (6 in)	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
☐ The area of the basin is less than 10 times the area of the unit points = 5	0
The area of the basin is 10 to 100 times the area of the unit points = 3	U
The area of the basin is more than 100 times the area of the unit points = 0	
☐ Entire wetland is in the Flats class points = 5	
Total for D 4 Add the points in the boxes above	5
Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the rating on t	he first page
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1
Yes = 1 No = 0	ı
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1
Yes = 1 No = 0	
Total for D 5 Add the points in the boxes above	3
Rating of Landscape Potential If score is: \square 3 = H \square 1 or 2 = M \square 0 = L Record the rating on the	he first page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best	
matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u>	
score if more than one condition is met.	
The wetland captures surface water that would otherwise flow down-gradient into areas	
where flooding has damaged human or natural resources (e.g., houses or salmon redds):	
Flooding occurs in a sub-basin that is immediately down-	
gradient of unit. points = 2	0
□ Surface flooding problems are in a sub-basin farther down-	
gradient. points = 1	
☐ Flooding from groundwater is an issue in the sub-basin. points = 1	
☐ The existing or potential outflow from the wetland is so constrained	
by human or natural conditions that the water stored by the wetland	
cannot reach areas that flood Evoluin why	
cannot reach areas that flood. Explain why points = 0	
☐ There are no problems with flooding downstream of the wetland. points = 0	
☐ There are no problems with flooding downstream of the wetland. points = 0 D 6.2. Has the site been identified as important for flood storage or flood	0
☐ There are no problems with flooding downstream of the wetland. points = 0	0

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

These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ½ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.	
 □ Aquatic bed □ Emergent □ Scrub-shrub (areas where shrubs have > 30% cover) □ Forested (areas where trees have > 30% cover) □ If the unit has a Forested class, check if: □ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods 	0
Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods).	
 □ Permanently flooded or inundated □ Seasonally flooded or inundated □ Occasionally flooded or inundated □ Occasionally flooded or inundated □ Saturated only □ Permanently flowing stream or river in, or adjacent to, the wetland □ Seasonally flowing stream in, or adjacent to, the wetland 	1
☐ Lake Fringe wetland 2 points	
☐ Freshwater tidal wetland 2 points H 1.3. Richness of plant species	
Count the number of plant species in the wetland that cover at least 10 ft ² . Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species	0
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high.	1
None = 0 points Low = 1 point Moderate = 2 points All three diagrams	
in this row are HIGH = 3 points	

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. The number of checks is the number of points. Carge, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland (> 4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland (4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland (4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland (4 in diameter and 6 ft long) Undercut banks are present for at least 3.3 ft (10 m) and/or overhanging plants extends at least 3.3 ft (10 m) and of the standing (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least ½, a of thin-stemmed persistent plants or woody branches are present in, areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 ft list of strate) Total for H1		
Distance Distance	·	
Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long) Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut strubs or trees that have not yet weathered where wood is exposed) Al least 1/2 ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphiblians)	·	
Standing snags (dbh > 4 in) within the wetland Undercut banks are present for at least 6.8 if (2 m) and/or overhanging plants extends at least 3.3 if (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 if (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 if (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) At least ½ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 2 Rating of Site Potential if Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat function of the site? H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: 0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0% If total accessible habitat is: 0 % of 1 km Polygon points = 3 points = 2 points = 1 1 % of 1 km Polygon points = 0 1	<i>'</i>	
Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at least 3.3 ft (10 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 38 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) Al least 1/a cof thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 2 Rating of Site Potential if Score is: □ 15 - 18 = H □ 7 - 14 = M □ 0 - 6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat function of the site? H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: 0 % undisturbed habitat + (□ 0 % moderate & low intensity land uses / 2) = 0% If total accessible habitat is: > ¹/₂ (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 0 10 - 19% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat 1 km Polygon around the wetland. Calculate: 11 % undisturbed habitat 1 km Polygon around the wetland. Calculate: 11 % undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and in 1-3 patches points = 0 H 2.3 Land use intensity in 1 km Polygon: If km Polygon points = 0 Total for H 2 Add the points in the boxes above -1 Rating of Landscape Potential If Score is: □ 4 · 6 = H □ 1 · 3 = M □ < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score tha		
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 3.3 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least ½ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strate) Total for H1		
33 ft (10 m) Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees that have not yet weathered where wood is exposed</i>) At least 1/k as of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see <i>H 1.1 for list of strata</i>) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see <i>H 1.1 for list of strata</i>) Add the points in the boxes above 2	. , , , , , , , , , , , , , , , , , , ,	
Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) At least ½ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Rating of Site Potential if Score is:		0
(> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees that have not yet weathered where wood is exposed) □ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibiants) □ Invasive plants cover less than 25% of the welland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Add the points in the boxes above 2 Rating of Site Potential if Score is: □ 15 - 18 = H □ 7 - 14 = M □ 0 - 6 = L Record the rating on the first page H 2.0. Does the landscape have the potential to support the habitat function of the site? H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit). Calculate: □ 0 % undisturbed habitat + (□ 0 % moderate & low intensity land uses / 2) = 0% If total accessible habitat is: □ 0 points = 3		U
that have not yet weathered where wood is exposed) At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1 Rating of Site Potential if Score is:		
At least ½ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) □ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1		
that are permanently or seasonally inundated (structures for egg-laying by amphibians) Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1		
Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 1.1 for list of strata) Total for H 1		
1.1 for list of strata Total for H 1		
Total for H 1 Rating of Site Potential f Score is:		
Rating of Site Potential If Score is:		
H 2.0. Does the landscape have the potential to support the habitat function of the site? H 2.1 Accessible habitat (include <i>only habitat that directly abuts wetland unit</i>). Calculate: 0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0% If total accessible habitat is: > 1/3 (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 0 10 - 19% of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: 11 % undisturbed habitat + (25 % moderate & low intensity land uses / 2) = 23.5% Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches Undisturbed habitat 10 - 50% and 3 patches Undisturbed habitat 1 - 50% and 3 patches Undisturbed habitat 1 - 50% and 9 3 patches Undisturbed habitat 1 - 50% in 1 km Polygon points = 0 H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use \$ 50% of 1 km Polygon is high intensity land use \$ 50% of 1 km Polygon is high intensity land use \$ 50% of 1 km Polygon is high intensity points = 0 Total for H 2 Add the points in the boxes above -1 Rating of Landscape Potential If Score is: 4 · 6 = H 1 - 3 = M 1 - 1 = L Record the rating on the first page H 3.1. Does the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 2 It thas 3 or more priority habitats within 100 m (see next page) It trovides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) It is anyeland of High Conservation Value as determined by the Department of Natural Resources It is a Wetland of High Conservation Value as determined by the Department of Natural Resources It is a vertical intensity points = 0 Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 0		
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Calculate: 0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0% If total accessible habitat is: 0 > 1/3 (33.3%) of 1 km Polygon points = 3 20 - 33% of 1 km Polygon points = 1 10 - 19% of 1 km Polygon points = 0 + 10 % of 1 km Polygon points = 0 + 12.2. Undisturbed habitat in 1 km Polygon around the wetland. Calculate: 11 % undisturbed habitat + (25 % moderate & low intensity land uses / 2) = 23.5% Undisturbed habitat > 50% of Polygon points = 2 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat < 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat < 10% of 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = 0 H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use points = 0 Total for H 2 Add the points in the boxes above -1 Rating of Landscape Potential: If Score is: 4 - 6 = H 1 - 3 = M < 1 = L Record the rating on the first page H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose only the highest score that applies to the wetland being rated. Site meets ANY of the following criteria: points = 0 It has 3 or more priority habitats within 100 m (see next page) It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) It is mapped as a location for an individual WDFW priority species It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1 Site does not meet any of the criteria above points = 0		
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10 - 19% of 1 km Polygon		
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H 2.3 Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use	Undisturbed habitat 10 - 50% and > 3 patches points = 1	
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Wetland Rating System for Western WA: 2014 Update Rating Form - Effective January 1, 2015

Wetland	name	٥r	number	W7	
vvelianu	Hallie	OI	Hullibel	V V /	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. ☐ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore. Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

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

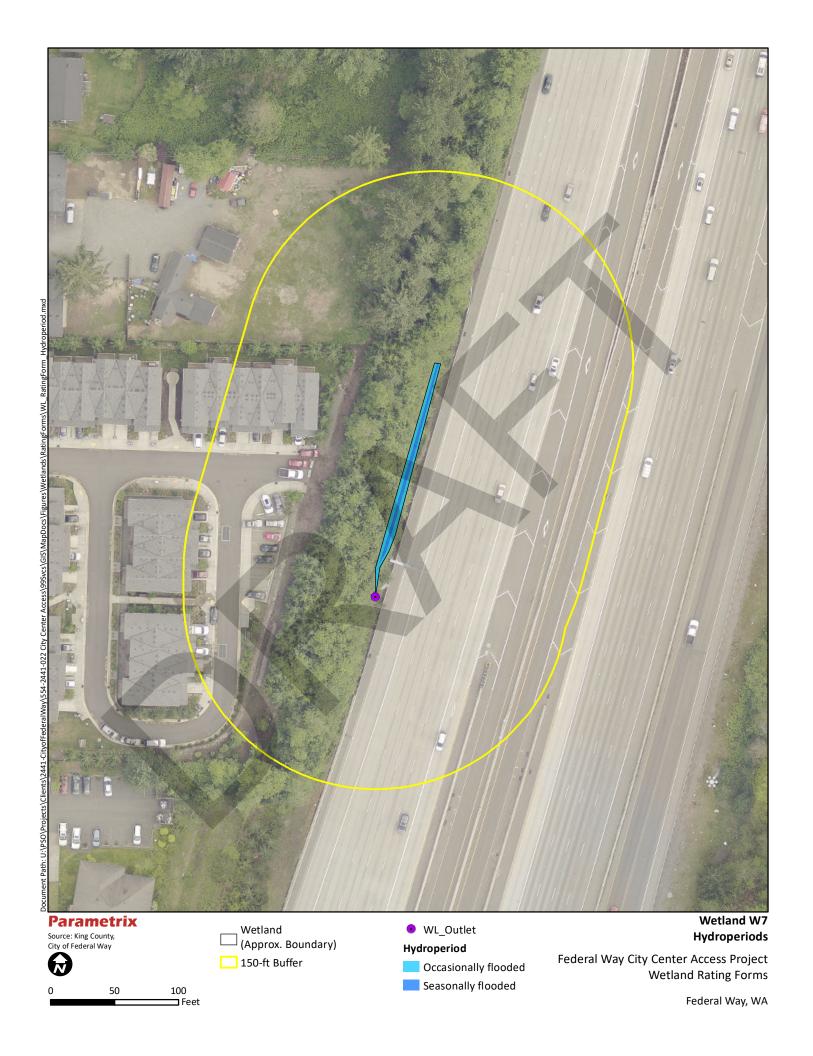
in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

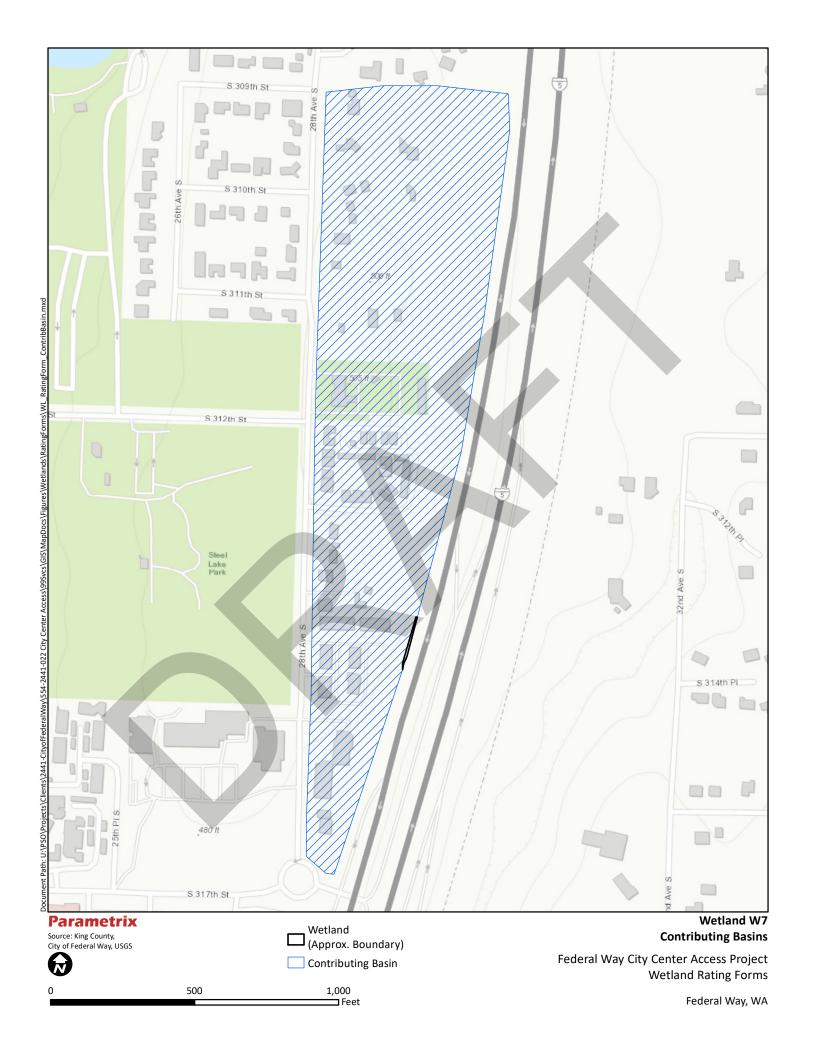
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

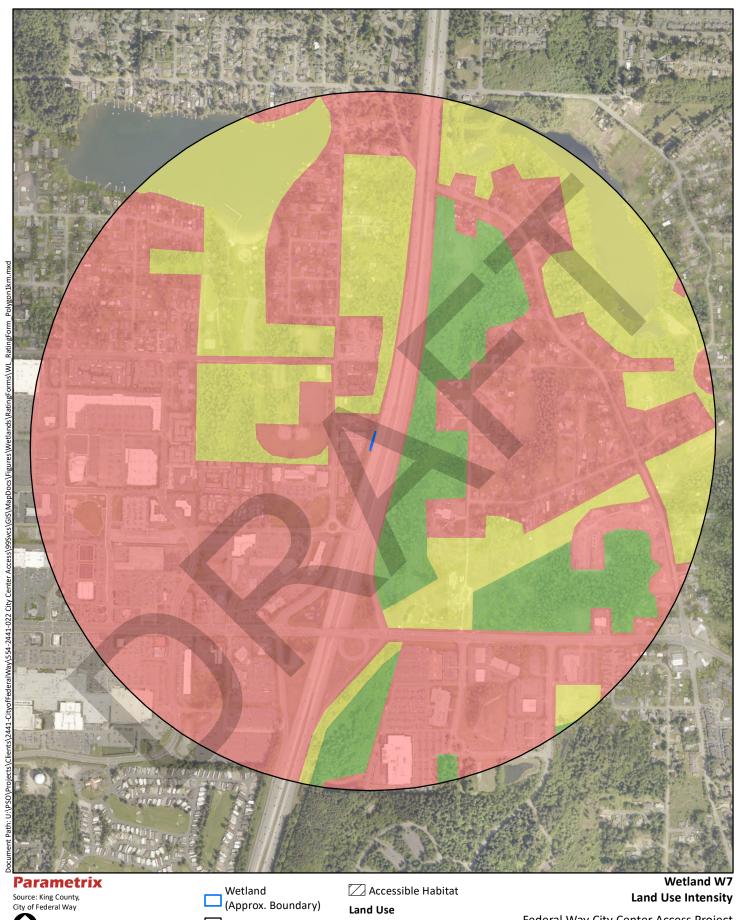
Check off any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
SC 1.0. Estuarine Wetlands	
Does the wetland meet the following criteria for Estuarine wetlands?	
☐ The dominant water regime is tidal,	
□ Vegetated, and	
□ With a salinity greater than 0.5 ppt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

SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
	be measured near the bottom)	_
	\square Yes - Go to SC 5.1 \square No = Not a wetland in a coastal lagoon	
l	Does the wetland meet all of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
_	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
00.00	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.		
00 0.1.	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Q ,	
	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
	☐ Yes = Category III ☐ No = Category IV	
Catego	ry of wetland based on Special Characteristics	
If you a	nswered No for all types, enter "Not Applicable" on Summary Form	









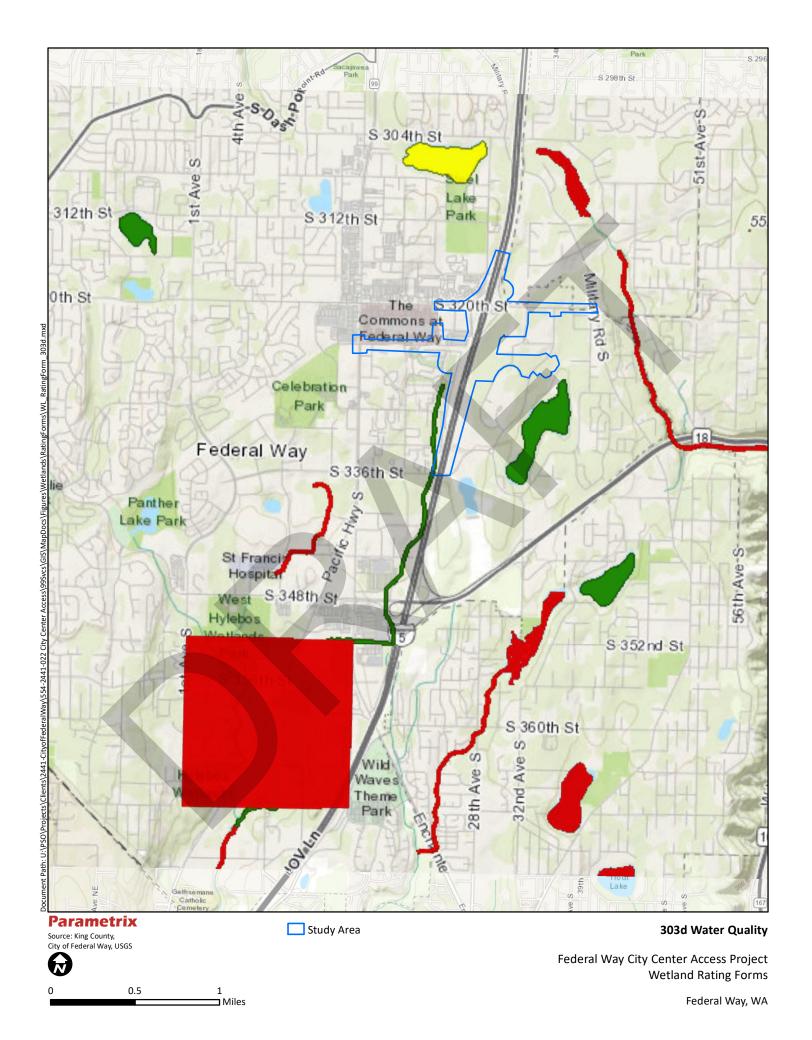
0 500 1,000 Feet 1-km Polygon

Land Use High

Low/moderate
Undisturbed

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>W</u> 9					Date of site visit:	8/18/2020
Rated by Per Johns	on, Aaron Thom	Tr	ained by E	cology?☑ Yes□	No	Date of trainin	g 2014
HGM Class used for	rating Slope			Wetland has mu	ıltiple H	HGM classes? □	Yes ☑ No
OVERALL WETLA	rm is not complete Source of base aer ND CATEGORY vetland based on	ial photo/map	(based on				
i. outogory or i		- Total score			Sc	ore for each	
-		II - Total score				nction based	
-		III - Total scor				three	
=		I V - Total scor				ings	
-	Category i	IV - TOTAL SCOL	6 - 3 - 13			der of ratings	
FUNCTION	Improving	Hydrologic	Habitat		isr	not	
FUNCTION	Water Quality				imp	portant)	
	List app	ropriate rating	(H, M, L)				
Site Potential	М	М	L		9 =	: H, H, H	
Landscape Potential	М	М	L		8 =	: H, H, M	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	(H, M, L)	
Site Potential	M	M	L	
Landscape Potential	M	M	L	
Value	M	M	L	Total
Score Based on Ratings	6	6	3	15

7 = H, H, L 7 = H, M, M 6 = H, M, L 6 = M, M, M 5 = H, L, L 5 = M, M, L4 = M, L, L 3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 lev	vels in the entire unit usually c	ontrolled by tides except during floods?
□ NO - go to	02	YES - the wetland class is Tidal Fringe - go to 1.1
1.1 Is the sali	nity of the water during period	s of annual low flow below 0.5 ppt (parts per thousand)?
If your we it is Saltwo		reshwater Tidal Fringe use the forms for Riverine wetlands. If arine wetland and is not scored. This method cannot be
	d unit is flat and precipitation urface water runoff are NOT s	is the only source (>90%) of water to it. ources of water to the unit.
☑ NO - go to If your we		☐ YES - The wetland class is Flats lats wetland, use the form for Depressional wetlands.
□ The veget plants on		the shores of a body of permanent open water (without any year) at least 20 ac (8 ha) in size;
☑ NO - go to	04	YES - The wetland class is Lake Fringe (Lacustrine Fringe)
☑ The wetla ☑ The water may flow s		e very gradual), one direction (unidirectional) and usually comes from seeps. It in a swale without distinct banks.
□ NO - go to	0.5	☑ YES - The wetland class is Slope
		e of wetlands except occasionally in very small and shallow re usually <3 ft diameter and less than 1 ft deep).
☐ The unit is from that	vetland unit meet all of the foll s in a valley, or stream channe stream or river, eank flooding occurs at least o	el, where it gets inundated by overbank flooding
□ NO - go to		☐ YES - The wetland class is Riverine
NOTE: The Riverine	e unit can contain depressions	s that are filled with water when the river is not flooding.

	nic depression in which water ponds, or is saturated to the surface, at nat any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☐ YES - The wetland class is Depressional
The unit does not pond surface water more	ery flat area with no obvious depression and no overbank flooding? the than a few inches. The unit seems to be maintained by high by be ditched, but has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to im	prove water quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 elevation for every 100 ft of horizontal distance)	ft vertical drop in	
Slope is 1% or less	points = 3	1
Slope is > 1% - 2%	points = 2	ı
Slope is > 2% - 5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic (use NRCS definitions):	Yes = 3 No = 0	0
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollut Choose the points appropriate for the description that best fits the plants in the means you have trouble seeing the soil surface (>75% cover), and uncut means mowed and plants are higher than 6 in.	tants: wetland. <i>Dense</i>	
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	6
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > 1/4 of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
	in the boxes above	7
Rating of Site Potential If score is: 12 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
S 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in	V: 4 N: 0	1
land uses that generate pollutants?	Yes = 1 No = 0	
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?		4
	Vac = 1 No = 0	1
Other Sources <u>Vegetation management (assumed herbicides)</u> Total for S 2 Add the points	Yes = 1 No = 0	2
	in the boxes above	2 */a a firest in a ma
Rating of Landscape Potential If score is: ☑ 1 - 2 = M □ 0 = L	Record the rating on	tne first page
S 3.0. Is the water quality improvement provided by the site valuable to society?	?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list.	Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? Answer YES if there is a TMDL for the basin in which the unit is found?	Yes = 2 No = 0	0
	in the boxes above	1
Rating of Value If score is: \square 2 - 4 = H \square 1 = M \square 0 = L	Record the rating on	the tiret none

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flo	oding and stream er	osion
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during	storms: Choose the	
points appropriate for the description that best fits conditions in the wetland. St	ems of plants	
should be thick enough (usually $> 1/8$ in), or dense enough, to remain erect du	ıring surface flows.	1
Dense, uncut, rigid plants cover > 90% of the area of the wetland	points = 1	
All other conditions	points = 0	
Rating of Site Potential If score is: ☑ 1 = M □ 0 = L	Record the rating on	the first page
S 5.0. Does the landscape have the potential to support hydrologic functions of	the site?	
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land		1
uses or cover that generate excess surface runoff?	Yes = 1 No = 0	'
Rating of Landscape Potential If score is: ☑ 1 = M ☐ 0 = L	Record the rating on	the first page
S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems:		
The sub-basin immediately down-gradient of site has flooding		
problems that result in damage to human or natural resources (e.g.,		1
houses or salmon redds)	points = 2	'
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	
S 6.2. Has the site been identified as important for flood storage or flood		0
conveyance in a regional flood control plan?	Yes = 2 No = 0	U
Total for S 6 Add the points	in the boxes above	1
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the rating on	the first page

NOTES and FIELD OBSERVATIONS:

W9 recieves water from surface/overland flow, it's outlet is a catchbasin.

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ☐ Aquatic bed 4 structures or more: points = 4 0 ☑ Emergent 3 structures: points = 2 ☐ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). ☐ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☐ Seasonally flooded or inundated 0 ☐ Occasionally flooded or inundated 2 types present: points = 1 ☑ Saturated only 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points ☐ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle 0 If you counted: > 19 species points = 25 - 19 species points = 1 < 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 0 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. <i>The number of checks is the number of points.</i>	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☐ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends	
at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at	
least 33 ft (10 m)	0
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning	
(> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see	
H 1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	0
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
20 % undisturbed habitat + (11 % moderate & low intensity land uses / 2) = 25.5%	
	1
Undisturbed habitat > 50% of Polygon points = 3	'
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	-1
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < 1 = L Record the rating on	the first page
II 2.0. In the highitest previded by the cite valuable to enciety?	
H 3.0. Is the habitat provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	0
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: 2 = H 1 1 = M 2 0 = L Record the rating on	the first page

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

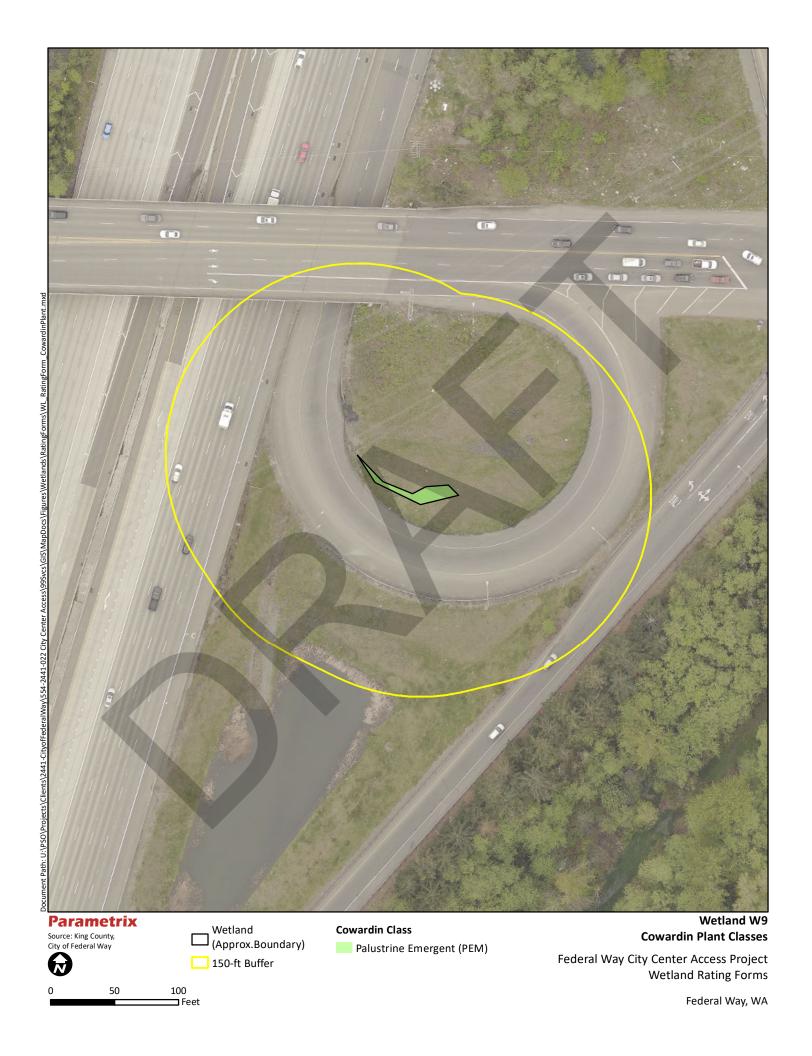
ш	Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
	Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
	Herbaceous Balds: Variable size patches of grass 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 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests — Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
	Oregon White Oak : Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
	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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
	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. (<i>full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page</i>).
	Caves : A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
	Cliffs: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
	Talus : Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
	Snags and Logs : Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

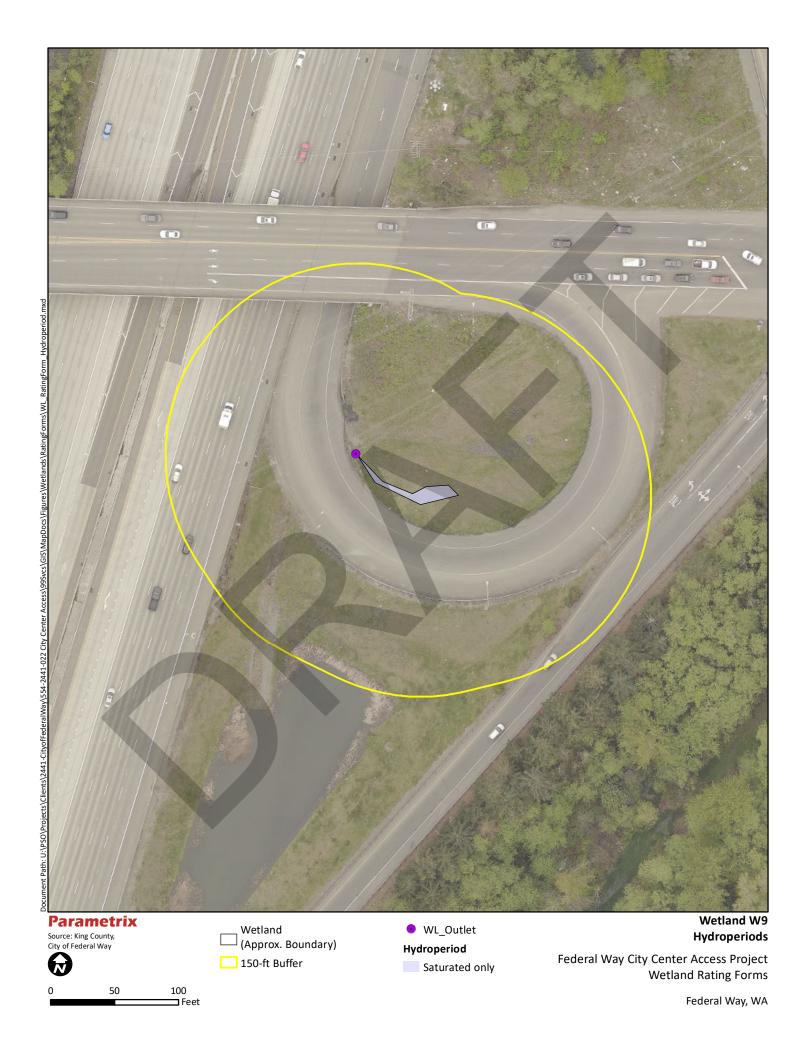
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

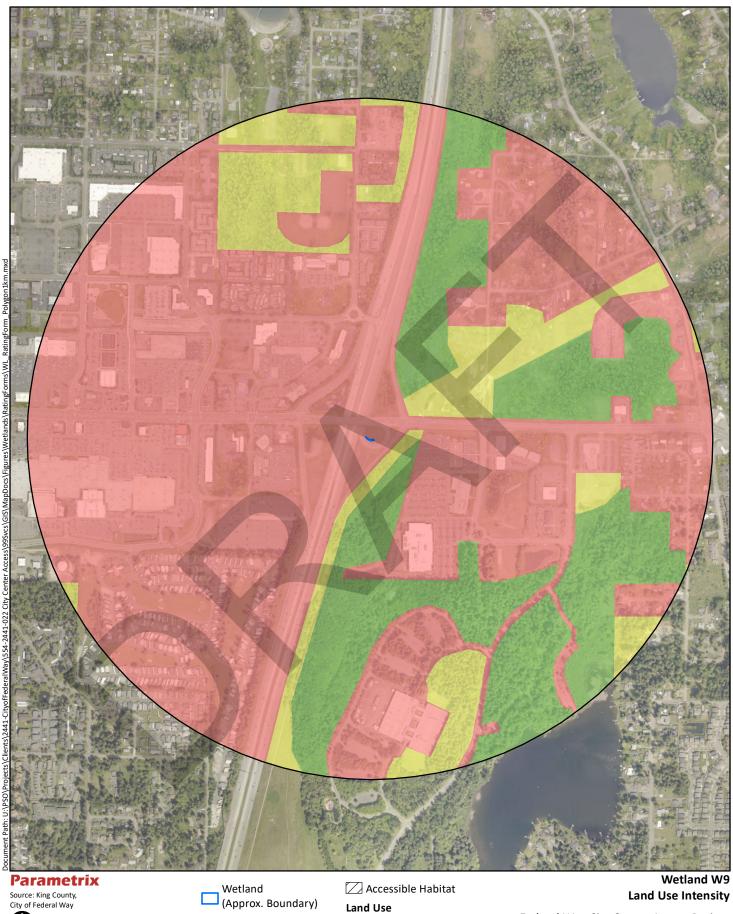
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
2222	☐ Yes = Category I ☐ No = Category II	
	Wetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value? ☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
30 2.2.	✓ Yes = Category I ✓ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
3C 2.3.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
00 2.4.	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0.		
0.01	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation	
	in bogs? Use the key below. If you answer YES you will still need to rate the	
	wetland based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
	level, AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann	
	spruce, or western white pine, AND any of the species (or combination of species) listed	
	in Table 4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

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









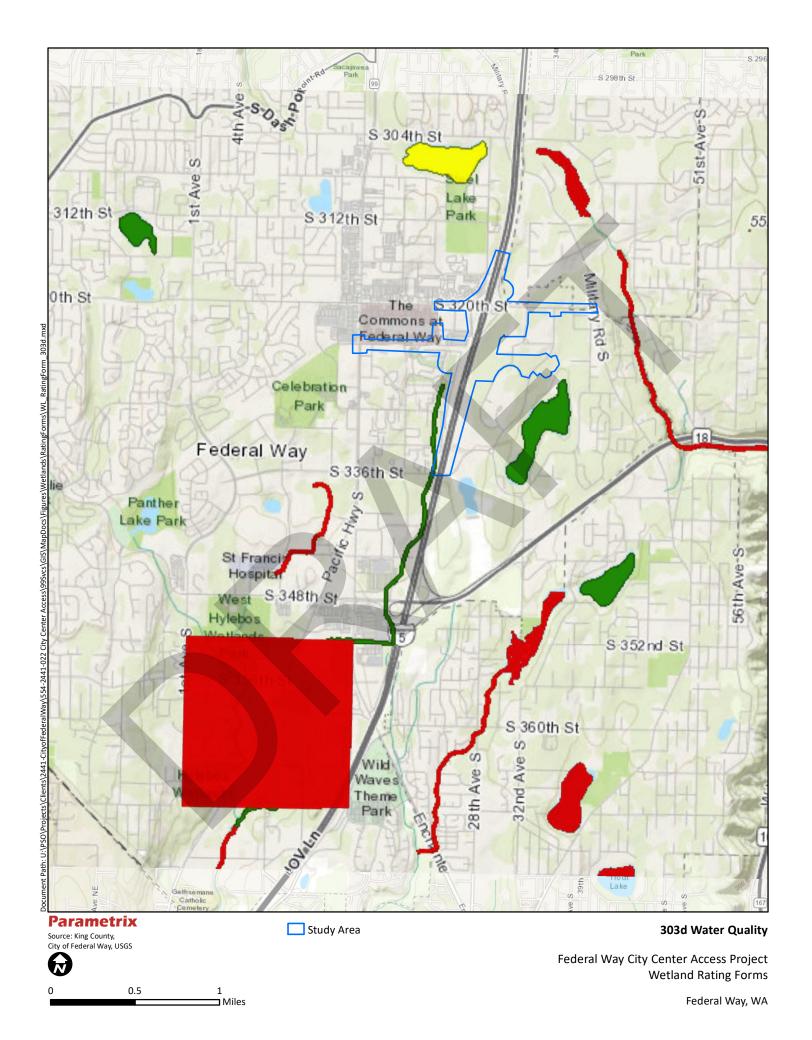
0 500 1,000 Feet 1-km Polygon

High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms



RATING SUMMARY – Western Washington

Name of wetland (or I	D#): <u>W10</u>					[Date of site visit:	8/19	/2020
Rated by Per Johnson	on, Aaron Thom	_ т	rained by Ed	cology?⊡	Yes□	No	Date of trainin	g	2014
HGM Class used for	rating Depressio	nal & Flats		Wetland	d has mı	ıltiple H	IGM classes?□	Yes ⊡] No
NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/map									
OVERALL WETLAND CATEGORY (based on functions 🗹 or special characteristics 🗆)									
1. Category of w									
-	Category	I - Total score	e = 23 - 27			Sco	re for each		
_	Category	II - Total scor	re = 20 - 22			fun	ction based		
	X Category	III - Total sco	re = 16 - 19			on t	hree		
·-	Category	Category IV - Total score = 9 - 15			rati	ngs			
-						(ora	ler of ratings		
	Improving	Hydrologic	Habitat			is no	ot		
FUNCTION	Water Quality					imp	ortant)		
	List ap	oropriate ratin	g (H, M, L)						
Site Potential	L	L	M			9 =	н, н, н		
andscape Potential	M	Н	L				H, H, M		
/alue	L	M	М	Total			H, H, L		
Score Based on							H, M, M		
Ratings	5	6	5	16			H, M, L		
							M, M, M		
							H, L, L		

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 1	the water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.	1 Is the salinity of the water during per	iods of annual low flow below 0.5 ppt (parts per thousand)?
		a Freshwater Tidal Fringe use the forms for Riverine wetlands. It stuarine wetland and is not scored. This method cannot be
	entire wetland unit is flat and precipitation water and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.
Z	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
∠	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
<u> </u>	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i>) The water flows through the wetland may flow subsurface, as sheetflow, on The water leaves the wetland without	be very gradual), in one direction (unidirectional) and usually comes from seeps. It or in a swale without distinct banks.
	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream chal from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding
∠	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE:	The Riverine unit can contain depression	ons that are filled with water when the river is not flooding.

Wetland	name or number	W10	

	depression in which water ponds, or is saturated to the surface, at any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☑ YES - The wetland class is Depressional
•	flat area with no obvious depression and no overbank flooding? The a few inches. The unit seems to be maintained by high groundwater has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

W10 recieves water through a culvert (not flowing at the time of the site visit). Its outlet is a submerged culvert.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key)		
with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		4
constricted permanently flowing outlet. ☑ Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	1
that is permanently flowing	points = 1	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	politic	
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0
(use NRCS definitions).	Yes = 4 No = 0	U
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru	ub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	1
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/ ₁₀ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	2
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	
Total for D 2 Add the points	in the boxes above	2
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L	Record the rating on	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	e 303(d) list?	0
	Yes = 1 No = 0	•
D 3.3. Has the site been identified in a watershed or local plan as important for		
maintaining water quality (answer YES if there is a TMDL for the basin in which		0
the unit is found)?	Yes = 2 No = 0	
	in the boxes above	0
Rating of Value If score is: \square 2 - 4 = H \square 1 = M \square 0 = L	Record the rating on	the first page

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra	adation
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water	
leaving it (no outlet) points = 4 Wetland has an intermittently flowing stream or ditch, OR highly	
constricted permanently flowing outlet points = 2	0
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	O
permanently flowing ditch points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet	
that is permanently flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the	
deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	
☐ The wetland is a "headwater" wetland points = 3	
Wetland is flat but has small depressions on the surface that trap water points = 1	
Marks of ponding less than 0.5 ft (6 in) points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
☐ The area of the basin is less than 10 times the area of the unit points = 5	0
The area of the basin is 10 to 100 times the area of the unit points = 3	
The area of the basin is more than 100 times the area of the unit points = 0	
☐ Entire wetland is in the Flats class points = 5 Total for D 4 Add the points in the boxes above	3
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	trie iirst page
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1
Yes = 1 No = 0 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1
Yes = 1 No = 0	
Total for D 5 Add the points in the boxes above	3
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on	
D 6.0. Are the hydrologic functions provided by the site valuable to society?	the met page
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best	
matches conditions around the wetland unit being rated. Do not add points. Choose the highest	
score if more than one condition is met.	
The wetland captures surface water that would otherwise flow down-gradient into areas	
where flooding has damaged human or natural resources (e.g., houses or salmon redds):	
Flooding occurs in a sub-basin that is immediately down-	
gradient of unit. points = 2	
 Surface flooding problems are in a sub-basin farther down- 	1
gradient. points = 1	
☐ Flooding from groundwater is an issue in the sub-basin. points = 1	
☐ The existing or potential outflow from the wetland is so constrained	
by human or natural conditions that the water stored by the wetland	
cannot reach areas that flood. Explain why points = 0	
☐ There are no problems with flooding downstream of the wetland. points = 0	
D 6.2. Has the site been identified as important for flood storage or flood	0
conveyance in a regional flood control plan? Yes = 2 No = 0	
Total for D 6 Add the points in the boxes above	1
Rating of Value If score is: 2 - 4 = H	the first page

	These questions apply to wetle	ands of all HGM classes.	
HABITAT FUNCTION	IS - Indicators that site functions to provide	important habitat	
H 1.0. Does the site	e have the potential to provide habitat?		
Forested class. Che combined for each c	plant community: Indicators are Cowardia eck the Cowardin plant classes in the we class to meet the threshold of ½ ac or many enumber of structures checked.	etland. <i>Up to 10 patches may be</i>	
☑ Forested (ub (areas where shrubs have > 30% covariareas where trees have > 30% cover) has a Forested class, check if: sted class has 3 out of 5 strata (canopy, and-cover) that each cover 20% within the	1 structure: points = 0 sub-canopy, shrubs, herbaceous,	4
H 1.2. Hydroperiods			
to cover more than	water regimes (hydroperiods) present wind 10% of the wetland or ¼ ac to count (se the second or inundated	thin the wetland. The water regime has e text for descriptions of hydroperiods). 4 or more types present: points = 3	
☑ Seasonall☐ Occasiona☐ Saturated☐ Permaner	y flooded or inundated ally flooded or inundated	3 types present: points = 2 2 types present: points = 1 1 types present: points = 0 t to, the wetland	1
□ Lake Frin	ge wetland	2 points	
☐ Freshwat H 1.3. Richness of p	er tidal wetland	2 points	
Count the number of Different patches of have to name the span loosestrife, Canada If you counted:	f plant species in the wetland that cover the same species can be combined to r pecies. Do not include Eurasian milfo	meet the size threshold and you do not	1
H 1.4. Interspersion Decide from the diag in H 1.1), or the clas	of habitats grams below whether interspersion amouses and unvegetated areas (can include one. If you have four or more plant class	e open water or mudflats) is high,	3
None = 0 points	Low = 1 point	Moderate = 2 points	Ü
All three diagrams in this row are HIGH = 3 points			

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. <i>The number of checks is the number of che</i>	
points.	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
 ☑ Standing snags (dbh > 4 in) within the wetland 	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	3
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning	Ü
(> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)	
 ☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H 	
1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	12
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	
	, 3
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
19 % undisturbed habitat + (12 % moderate & low intensity land uses / 2) = 25%	
	1
Undisturbed habitat > 50% of Polygon points = 3	'
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	-1
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = L Record the rating on	the first page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	1
☐ It is a Wetland of High Conservation Value as determined by the	·
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: 2 = H 1 = M 0 = L Record the rating on	the first nage

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

Wetland	name	or nun	nher	W10	
vvenano	name	or nun	iibei	VVIU	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. ☐ Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore. Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

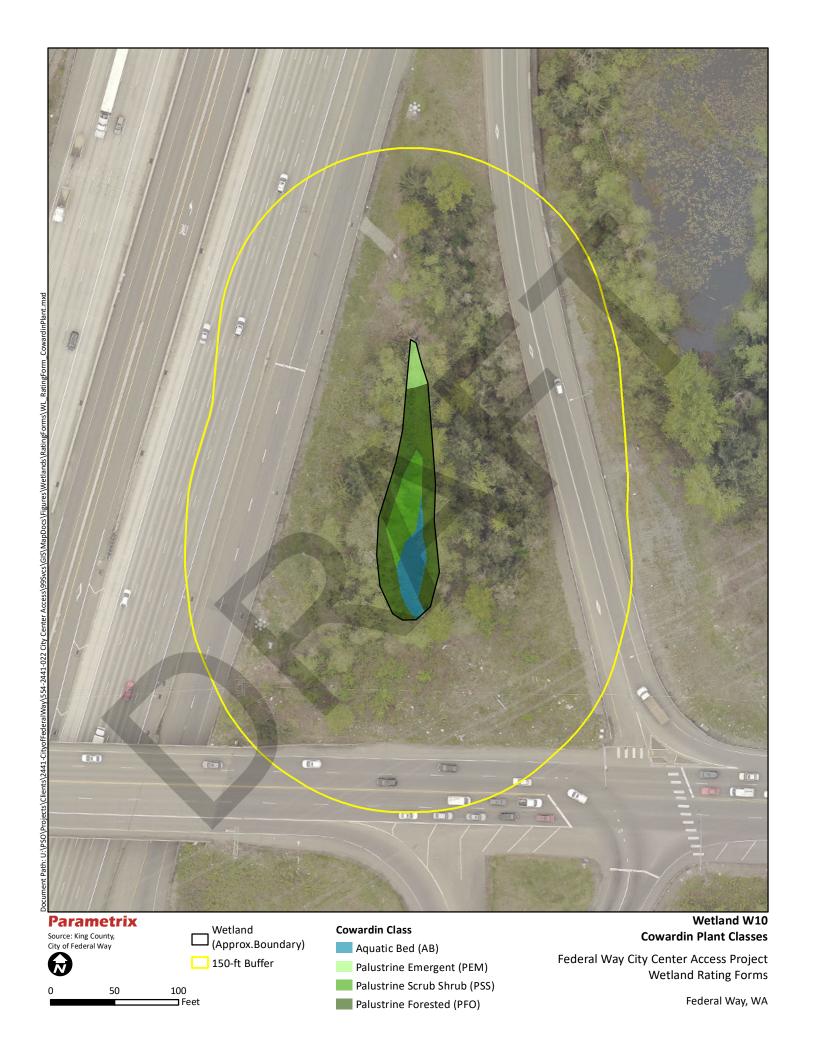
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

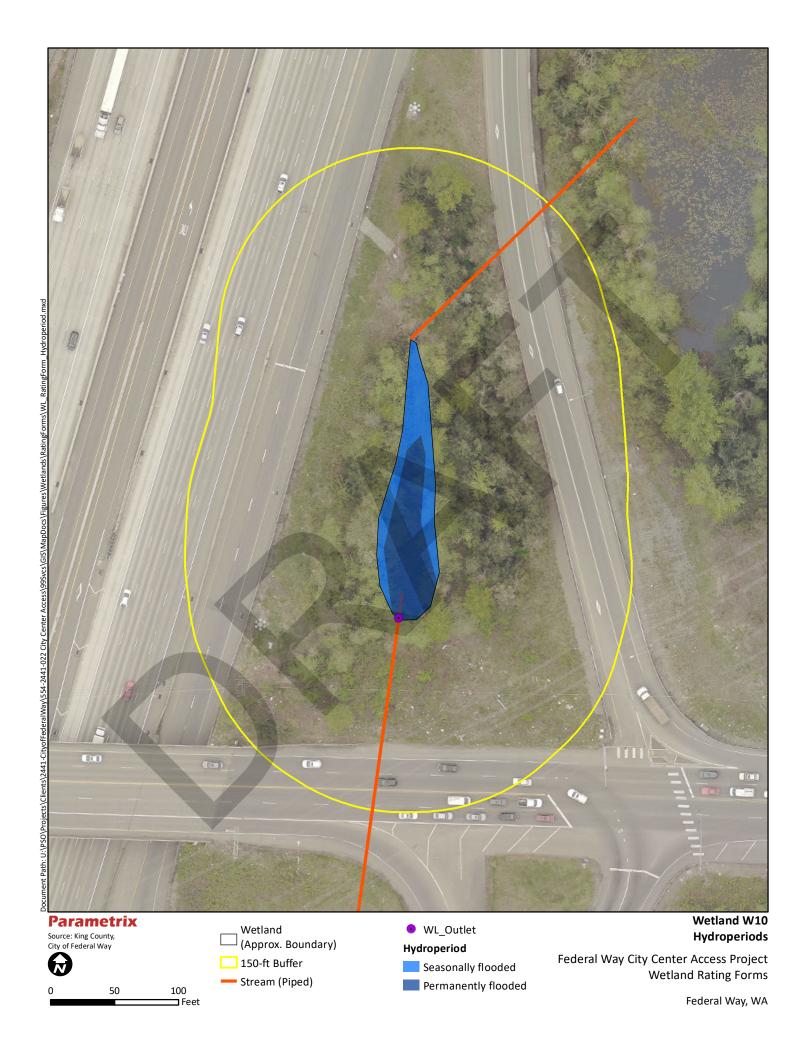
in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

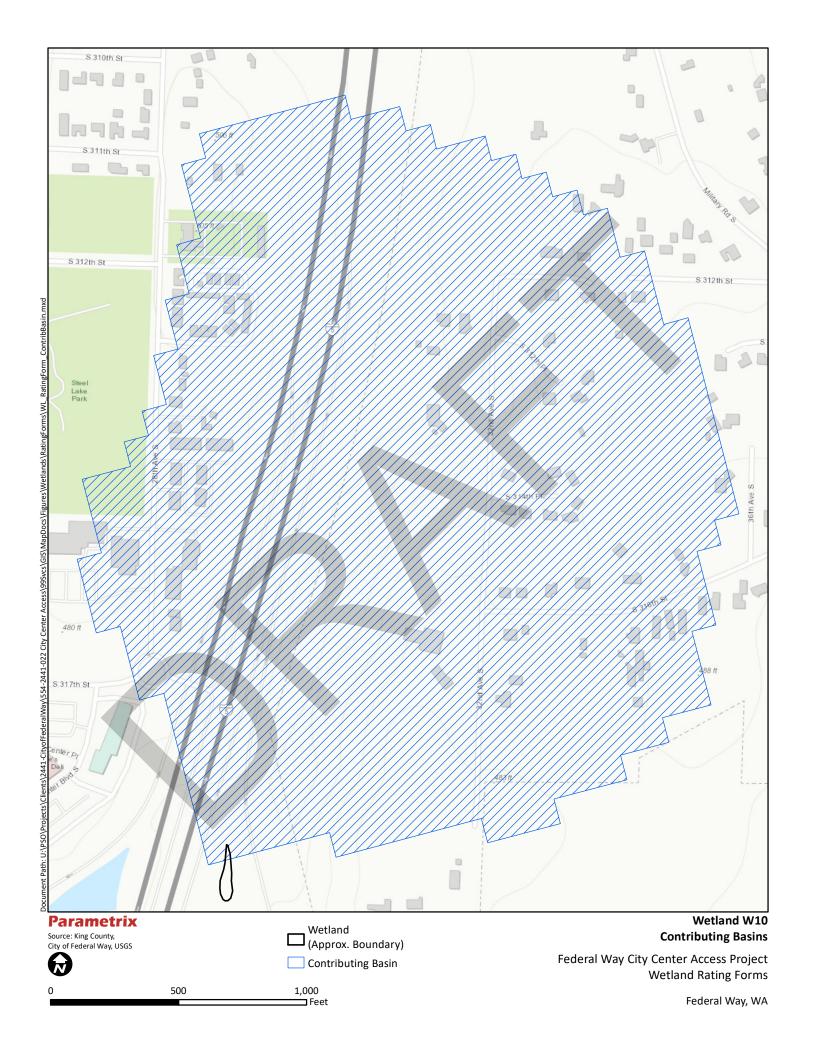
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

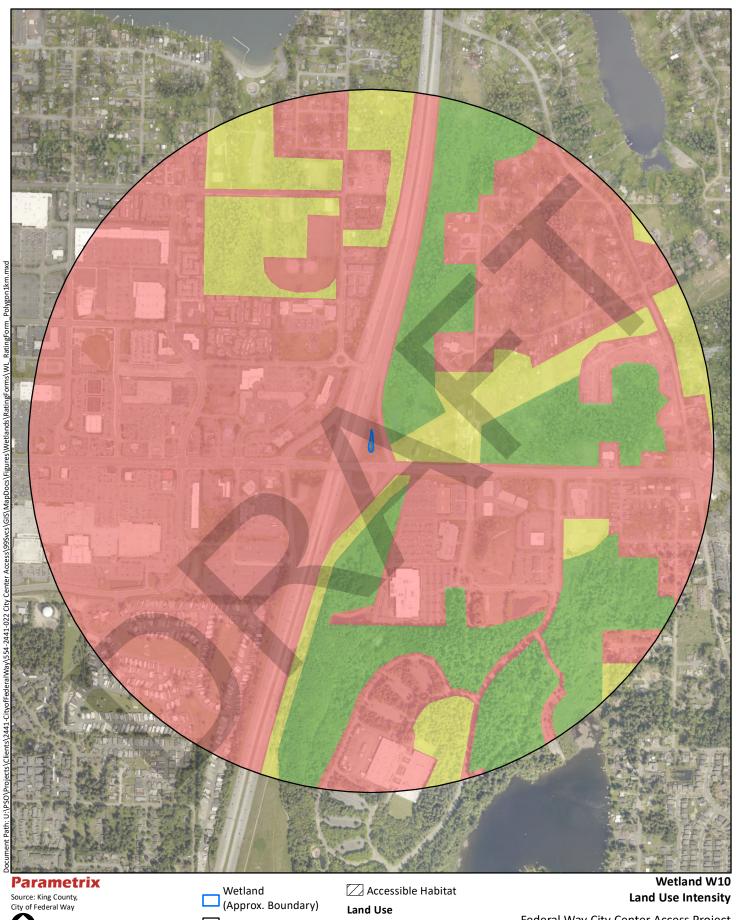
□ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) □ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland. □ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □ Yes = Category I □ No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? □ Yes = Go to SC 2.2 □ No - Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? □ Yes = Category I □ No = Not WHCV SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? □ Yes - Contact WNHP/WDNR and to SC 2.4 □ No = Not WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? □ Yes = Category I □ No = Not WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soils, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? □ Yes - Go to SC 3.3 □ No - Go to SC 3.2 SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? □ Yes - Go to SC 3.3 □ No - Go to SC 3.4 NOTE: If you are uncertain about the extent of	Wetland	Туре	Category
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands? The dominant water regime is tidal, Wegetated, and With a salinity greater than 0.5 ppt Yes - Go to SC 1.1	o		
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		☐ Yes = Is a Category I bog ☐ No = Is not a bog	

SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
_	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
_	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
	be measured near the bottom)	-
00 5 4	☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
	Does the wetland meet all of the following three conditions? The wetland is relatively undisturbed (here no diking, ditabling, filling, cultivation, grazing)	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
_	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
-		
SC 6.0	☐ Yes = Category I ☐ No = Category II Interdunal Wetlands	
00 0.0.	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
	□ Yes = Category III □ No = Category IV	
_	ry of wetland based on Special Characteristics	
If you ar	nswered No for all types, enter "Not Applicable" on Summary Form	











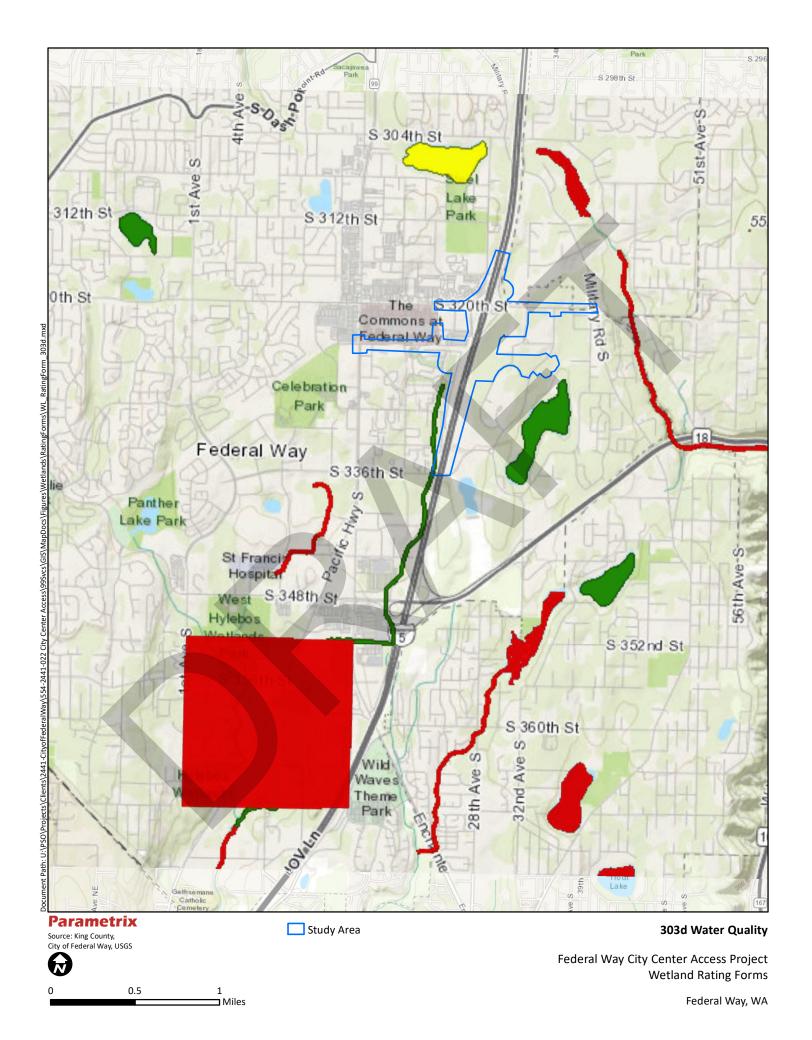
0 500 1,000 Feet 1-km Polygon

High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms



Value

Ratings

Score Based on

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): W11						Date of site visit:	8/19/2020
Rated by Per Johns	on, Aaron Thom	_ Tı	rained by Ecol	logy?☑	Yes□	No	Date of trainin	g 2014
HGM Class used for	rating Depression	nal & Flats		Wetland	d has mu	ıltiple l	HGM classes?□	Yes ☑ No
	rm is not complete Source of base aer		-	-	figures c	an be	combined).	
	Source or pase aer	іаі ріюю/шар	King County	liviap				
OVERALL WETLA	ND CATEGORY	II	(based on fur	nctions [☑ or spe	cial ch	aracteristics □)	
1. Category of w	etland based on	FUNCTION	S					
	Category 1	l - Total score	= 23 - 27			Sc	ore for each	
•	X Category	II - Total score	e = 20 - 22			fun	ction based	
•	Category 1	III - Total scor	re = 16 - 19			on	three	
•		Ⅳ - Total scor				rati	ings	
•						(or	der of ratings	
FUNCTION	Improving	Hydrologic	Habitat			isn	not	
FUNCTION	Water Quality					imp	oortant)	
	List app	ropriate rating	g (H, M, L)				, ,	
Site Potential	Н	М	Н			9 =	H, H, H	
Landecane Potential	N/I	ы				0 -	ц ц м	

М

6

1

Total

20

2. Category based on SPECIAL CHARACTERISTICS of wetland

Н

8

L

6

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	iods of annual low flow below 0.5 ppt (parts per thousand)?
		a Freshwater Tidal Fringe use the forms for Riverine wetlands. I stuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitati ater and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.
V	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
✓	the entire wetland unit meet all of the The wetland is on a slope (<i>slope car</i> The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland witho	be very gradual), in one direction (unidirectional) and usually comes from seeps. I or in a swale without distinct banks.
	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	from that stream or river,	nnel, where it gets inundated by overbank flooding
	The overbank flooding occurs at least	
✓	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depressi	ons that are filled with water when the river is not flooding.

Wetland	name or number	W11	

1 0 1	depression in which water ponds, or is saturated to the surface, at any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☑ YES - The wetland class is Depressional
•	y flat area with no obvious depression and no overbank flooding? The a few inches. The unit seems to be maintained by high groundwater at has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

W11's inlet is unknown, its outlet is a culvert that leads to W10.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key)		
with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		_
constricted permanently flowing outlet.	points = 2	2
 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing 	points = 1	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	points = 1	
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		4
(use NRCS definitions).	Yes = 4 No = 0	4
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru	ub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	5
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	3
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	
Wetland has persistent, ungrazed plants < 1/ ₁₀ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in	n manual.	
Area seasonally ponded is > ½ total area of wetland	points = 4	4
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	15
Rating of Site Potential If score is:	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		
generate pollutants?	Yes = 1 No = 0	0
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	
	in the boxes above	1
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L	Record the rating on	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	e 303(d) list?	0
	Yes = 1 No = 0	
D 3.3. Has the site been identified in a watershed or local plan as important for		_
maintaining water quality (answer YES if there is a TMDL for the basin in which		0
the unit is found)?	Yes = 2 No = 0	-
	in the boxes above	0
Rating of Value If score is: 2-4=H 1=M 0=L	Record the rating on	tne first page

Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 3 Dimins = 1 Dimins = 1 Dimins = 1 Dimins = 0 Dimins =	DEPRESSIONAL AND FLATS WEILANDS	.1 . 4!
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	Rating of Value If score is: 2 - 4 = H 1 = M 0 = L Record the rating on	_

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. Aquatic bed 4 structures or more: points = 4 ☑ Emergent 3 structures: points = 2 ☑ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☑ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☑ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods). ☑ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☑ Seasonally flooded or inundated 2 ☐ Occasionally flooded or inundated 2 types present: points = 1 Saturated only 1 types present: points = 0 ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points □ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 25 - 19 species points = 1< 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 3 None = 0 points Low = 1 point Moderate = 2 points All three diagrams in this row are HIGH = 3 points

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number</i>	of
points.	OI
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☑ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extend	s at
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	4
☐ Stable steep banks of fine material that might be used by beaver or muskrat for dennii	
(> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☑ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in area	as
that are permanently or seasonally inundated (structures for egg-laying by amphibians	;)
☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (se	e H
1.1 for list of strata)	
Total for H 1 Add the points in the boxes ab	ove 15
Rating of Site Potential If Score is:	g on the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
6 % undisturbed habitat + (2 % moderate & low intensity land uses / 2) = 7%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points	= 3
20 - 33% of 1 km Polygon points	
10 - 19% of 1 km Polygon points	
< 10 % of 1 km Polygon points	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
14 % undisturbed habitat + (25 % moderate & low intensity land uses / 2) = 26.5	%
Undisturbed habitat > 50% of Polygon points	= 3
Undisturbed habitat 10 - 50% and in 1-3 patches points	
Undisturbed habitat 10 - 50% and > 3 patches points	
Undisturbed habitat < 10% of 1 km Polygon points	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points =	(-2) -2
≤ 50% of 1km Polygon is high intensity points	, ,
Total for H 2 Add the points in the boxes ab	ove -1
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < 1 = L Record the rating	
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provided by the site valuable to society:	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points	= 2
☐ It has 3 or more priority habitats within 100 m (see next page)	-
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	1
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points	= 1
Site does not meet any of the criteria above points	•
Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = I Record the rating	a on the first page

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
-	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☑ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
_	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
0000	☐ Yes = Category I ☐ No = Category II	
	Vetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of	
30 2.1.	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00 2.2.	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E	Bogs	
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
· ·	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
0000	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4 NOTE : If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
	be measured near the bottom)	
	☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
SC 5.1.	Does the wetland meet all of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
_	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.	
	In practical terms that means the following geographic areas: Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
Ш	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
00 0.1.	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
33 0.2.	Yes = Category II □ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
30 0.0.	1 ac?	
	☐ Yes = Category III ☐ No = Category IV	
Categor	y of wetland based on Special Characteristics	
_	swered No for all types, enter "Not Applicable" on Summary Form	



Source: King County, City of Federal Way



0 50 100 **□** Feet ☐ Wetland (Approx.Boundary)

150-ft Buffer

Cowardin Class

Aquatic Bed (AB)

Palustrine Emergent (PEM)

Palustrine Scrub Shrub (PSS)

Palustrine Forested (PFO)

Cowardin Plant Classes

Federal Way City Center Access Project **Wetland Rating Forms**



Source: King County, City of Federal Way



0 50 100 **□** Feet

150-ft Buffer

Stream (Piped)

Hydroperiod

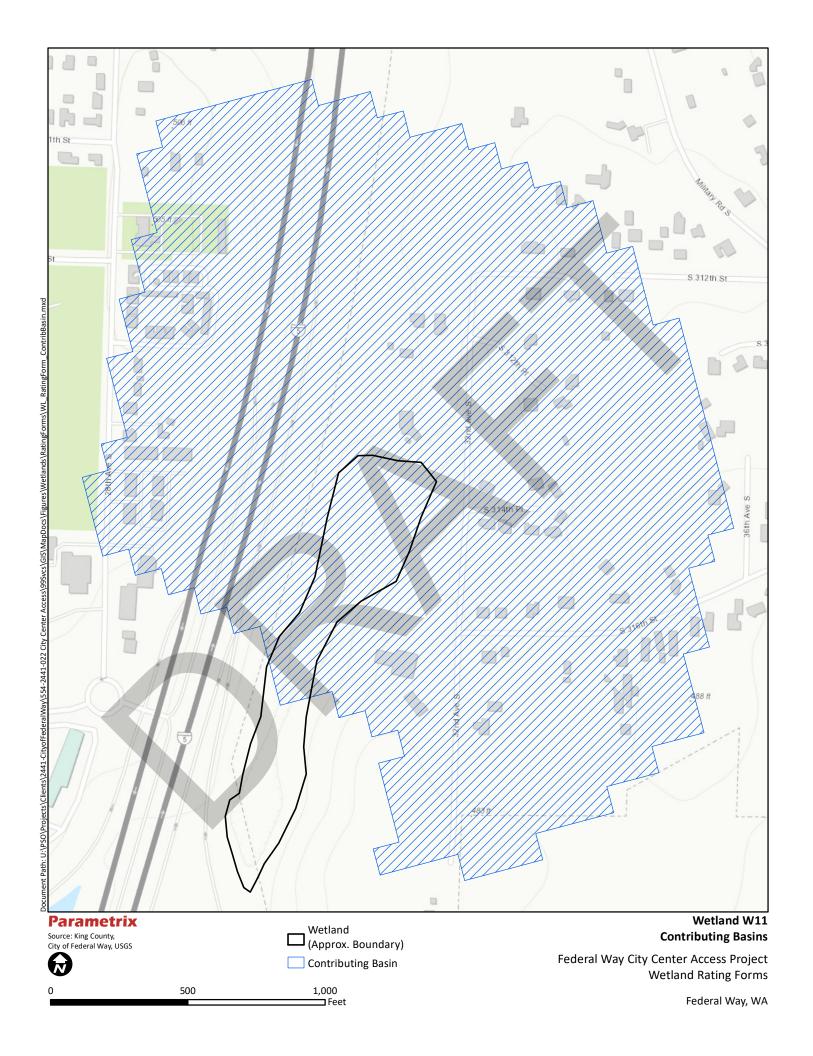
Saturated only

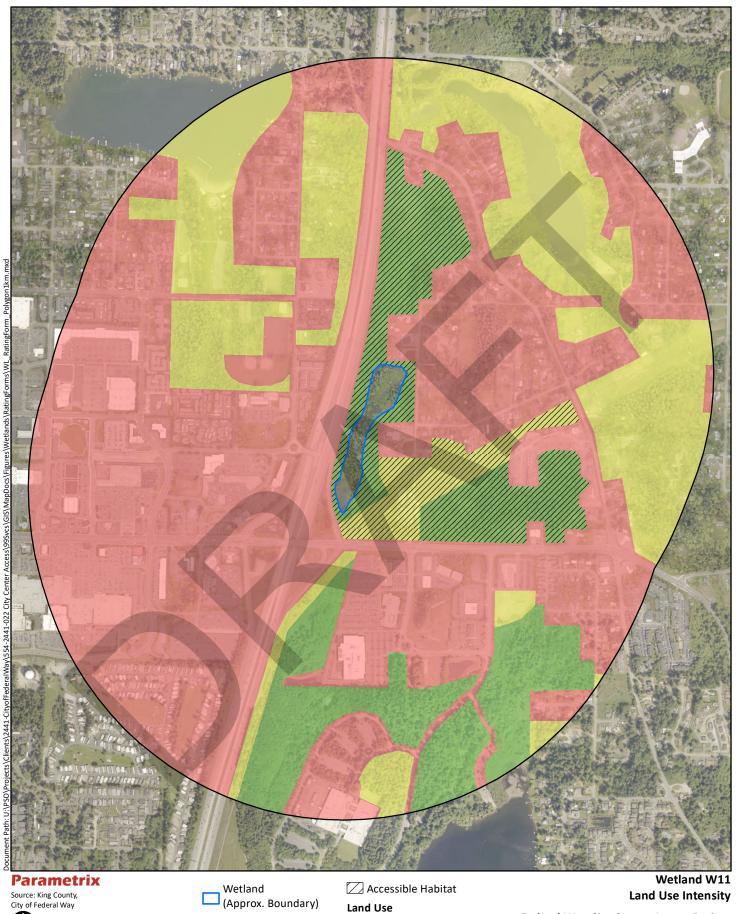
Seasonally flooded

Permanently flooded

Hydroperiods

Federal Way City Center Access Project Wetland Rating Forms







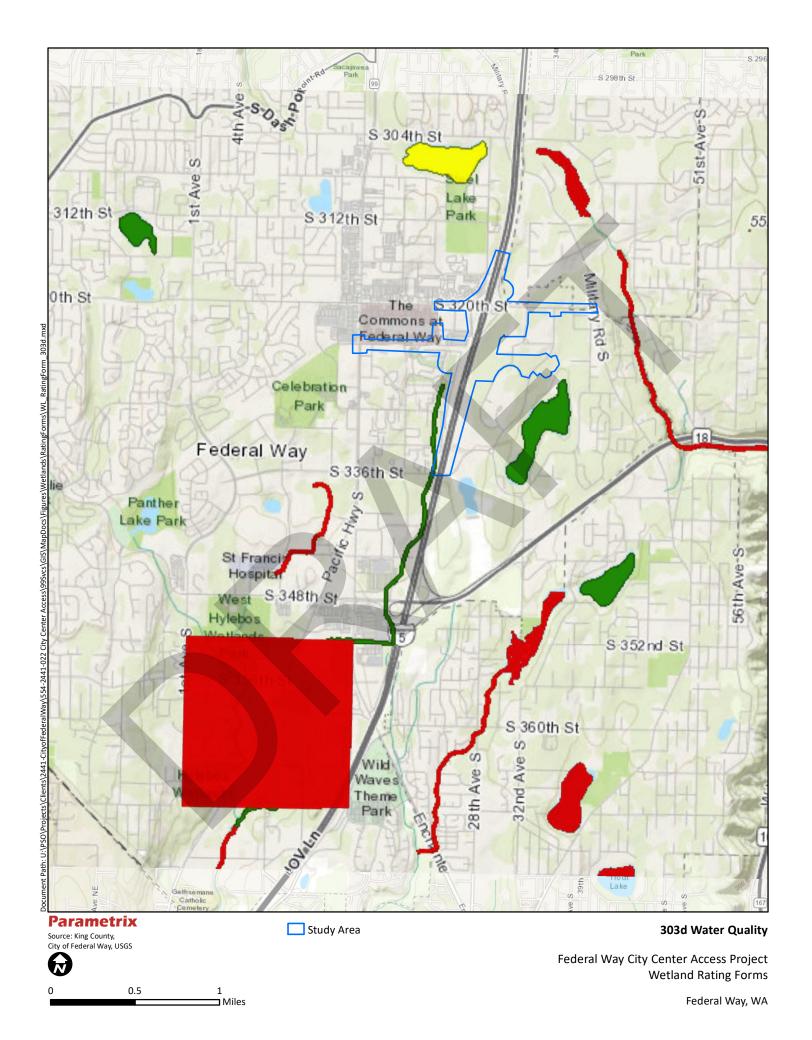
500 1,000 **⊐** Feet 1-km Polygon

High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms



RATING SUMMARY – Western Washington

Name of wetland (or	ID #): W	12						Date of site visit:	8/19/2020
Rated by Per Johns	on, Aaron ⁻	Thom	Tr	ained by E	cology?⊡	Yes□	No	Date of trainin	g 2014
HGM Class used for	rating De	epression	nal & Flats		Wetland	d has mu	ltiple F	lGM classes?□	Yes⊡ No
NOTE: Fo		-	with out the	_	equested (figures ca	an be d	combined).	
OVERALL WETLA	ND CATE	GORY	III	(based on	functions I	☑ or spec	cial ch	aracteristics □)	
1. Category of w	etland ba	ased on	FUNCTIONS	S					
	C	ategory I	- Total score	= 23 - 27			Sco	ore for each	
	C	ategory I	I - Total score	e = 20 - 22			fun	ction based	
•	X C	ategory I	II - Total scor	e = 16 - 19			on	three	
	C	ategory I	V - Total scor	e = 9 - 15			rati	ngs	
							(ord	der of ratings	
FUNCTION	Impro	ving	Hydrologic	Habitat			is n	ot	
TONCTION	Water C	Quality					imp	ortant)	
		List app	ropriate rating	(H, M, L)					
Site Potential	М		L	L			9 =	H, H, H	
_andscape Potential	Н		H	L			8 =	H, H, M	
/alue	М		M	L	Total		7 =	H, H, L	
Score Based on Ratings	7		6	3	16			H, M, M H, M, L	
							6 =	M, M, M	

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	e water levels in the entire unit usuall	controlled by tides except during	floods?
V	NO - go to 2	☐ YES - the wetland class is Tic	dal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5	ppt (parts per thousand)?
	NO - Saltwater Tidal Fringe (Estual f your wetland can be classified as a it is Saltwater Tidal Fringe it is an Estused to score functions for estuarine	Freshwater Tidal Fringe use the tuarine wetland and is not score	
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO		ater to it.
✓	NO - go to 3 If your wetland can be classified as a		e wetland class is Flats Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of the At least 30% of the open water area	on the shores of a body of perman ne year) at least 20 ac (8 ha) in si	
✓	NO - go to 4	☐ YES - The wetland class is L a	ake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i>). The water flows through the wetland may flow subsurface, as sheetflow, on the water leaves the wetland without .	be very gradual), in one direction (unidirectional) ar in a swale without distinct banks	
✓	NO - go to 5	☐ YES - The	e wetland class is Slope
	ourface water does not pond in these to ons or behind hummocks (depression		
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nel, where it gets inundated by o	verbank flooding
V	NO - go to 6	☐ YES - The	e wetland class is Riverine
NOTE: T	he Riverine unit can contain denressi	ns that are filled with water when	the river is not flooding

Wetland	name	٥r	number	W12	

	phic depression in which water ponds, or is saturated to the surface, at that any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☑ YES - The wetland class is Depressional
	very flat area with no obvious depression and no overbank flooding? The han a few inches. The unit seems to be maintained by high groundwater , but has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

W11 recieves water from overland flow. Its outlet is a catchbasin to the south.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im-	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key)		İ
with no surface water leaving it (no outlet).	points = 3	ı
Wetland has an intermittently flowing stream or ditch, OR highly		ı
constricted permanently flowing outlet.	points = 2	3
☐ Wetland has an unconstricted, or slightly constricted, surface outlet		ı
that is permanently flowing	points = 1	ı
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	4	l
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic	AV. A NI O	0
(use NRCS definitions).	Yes = 4 No = 0	
D 1.3. <u>Characteristics and distribution of persistent plants</u> (Emergent, Scrub-shru Cowardin classes):	ub, and/or Forested	
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	
·	points = 3	5
Wetland has persistent, ungrazed, plants > ½ of area		
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	ı
Wetland has persistent, ungrazed plants < 1/ ₁₀ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		ı
This is the area that is ponded for at least 2 months. See description in		
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	ı
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	8
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	
	Record the rating on	
D 2.0. Does the landscape have the potential to support the water quality function	Record the rating on n of the site?	
D 2.0. Does the landscape have the potential to support the water quality function D 2.1. Does the wetland unit receive stormwater discharges?	Record the rating on n of the site?	the first page
D 2.0. Does the landscape have the potential to support the water quality function D 2.1. Does the wetland unit receive stormwater discharges? D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that	Record the rating on on of the site? Yes = 1 No = 0	the first page
D 2.0. Does the landscape have the potential to support the water quality function D 2.1. Does the wetland unit receive stormwater discharges? D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Record the rating on on of the site? Yes = 1 No = 0 Yes = 1 No = 0	the first page 1 1
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D 2.0. Does the landscape have the potential to support the water quality function D 2.1. Does the wetland unit receive stormwater discharges? D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants? D 2.3. Are there septic systems within 250 ft of the wetland? D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1 - D 2.3? Source Vegetation management (assumed herbicides) Total for D 2 Add the points Rating of Landscape Potential If score is: ☑ 3 or 4 = H □ 1 or 2 = M □ 0 = L D 3.0. Is the water quality improvement provided by the site valuable to society? D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list? D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which	Record the rating on on of the site? Yes = 1 No = 0 Yes = 1 No = 0 Yes = 1 No = 0 Yes = 1 No = 0 in the boxes above Record the rating on each of the site?	the first page 1 1 0 1 3 the first page
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<u>DEPRESSIONAL AND FLATS WETLANDS</u>	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra	adation
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water	
leaving it (no outlet) points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly	0
constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	0
permanently flowing ditch permanently flowing ditch	
Wetland has an unconstricted, or slightly constricted, surface outlet	
that is permanently flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the	
deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7	
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	
☐ The wetland is a "headwater" wetland points = 3	
Wetland is flat but has small depressions on the surface that trap water points = 1	
Marks of ponding less than 0.5 ft (6 in) points = 0	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
☐ The area of the basin is less than 10 times the area of the unit points = 5	0
The area of the basin is 10 to 100 times the area of the unit points = 3	
The area of the basin is more than 100 times the area of the unit points = 0	
☐ Entire wetland is in the Flats class points = 5	0
Total for D 4 Add the points in the boxes above	0
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1
Yes = 1 No = 0 D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1
Yes = 1 No = 0	'
Total for D 5 Add the points in the boxes above	3
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on	
• •	the mst page
D 6.0. Are the hydrologic functions provided by the site valuable to society?	
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best	
matches conditions around the wetland unit being rated. Do not add points. Choose the highest	
score if more than one condition is met. The westland contures surface water that would otherwise flow down gradient into grade.	
The wetland captures surface water that would otherwise flow down-gradient into areas where flooding has damaged human or natural resources (e.g., houses or salmon redds):	
Flooding occurs in a sub-basin that is immediately down-	
gradient of unit.	
Surface flooding problems are in a sub-basin farther down-	1
gradient. points = 1	
☐ Flooding from groundwater is an issue in the sub-basin. points = 1	
☐ The existing or potential outflow from the wetland is so constrained	
by human or natural conditions that the water stored by the wetland	
cannot reach areas that flood. Explain why points = 0	
☐ There are no problems with flooding downstream of the wetland. points = 0	
D 6.2. Has the site been identified as important for flood storage or flood	0
conveyance in a regional flood control plan? Yes = 2 No = 0	U
Total for D 6 Add the points in the boxes above	1
Rating of Value If score is: □ 2 - 4 = H □ 1 = M □ 0 = L Record the rating on	the first nage

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

HAS On the black of the same			
H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of</i>			
points.			
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)			
☐ Standing snags (dbh > 4 in) within the wetland			
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at			
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least			
33 ft (10 m)	0		
☐ 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 (<i>cut shrubs or trees</i>			
that have not yet weathered where wood is exposed)			
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas			
that are permanently or seasonally inundated (<i>structures for egg-laying by amphibians</i>)			
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H			
1.1 for list of strata)			
Total for H 1 Add the points in the boxes above	0		
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	the first page		
H 2.0. Does the landscape have the potential to support the habitat function of the site?			
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).			
Calculate:			
0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0%			
If total accessible habitat is:	0		
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3			
20 - 33% of 1 km Polygon points = 2			
10 - 19% of 1 km Polygon points = 1			
< 10 % of 1 km Polygon points = 0			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.			
Calculate:			
19 % undisturbed habitat + (
Hadistant and hadistate FOOV of Dalaman	1		
Undisturbed habitat > 50% of Polygon Points = 3			
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2 Undisturbed habitat 10 - 50% and > 3 patches points = 1			
Undisturbed habitat < 10% of 1 km Polygon points = 0			
H 2.3 Land use intensity in 1 km Polygon: If			
> 50% of 1 km Polygon is high intensity land use points = (-2)	-2		
≤ 50% of 1km Polygon is high intensity points = 0	_		
Total for H 2 Add the points in the boxes above	-1		
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < < 1 = L Record the rating on			
H 3.0. Is the habitat provided by the site valuable to society?			
H 3.1. Does the site provided by the site valuable to society? H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>			
only the highest score that applies to the wetland being rated.			
Site meets ANY of the following criteria: points = 2			
☐ It has 3 or more priority habitats within 100 m (see next page)			
☐ It provides habitat for Threatened or Endangered species (any plant			
or animal on the state or federal lists)			
☐ It is mapped as a location for an individual WDFW priority species	_		
□ It is a Wetland of High Conservation Value as determined by the	0		
Department of Natural Resources			
☐ It has been categorized as an important habitat site in a local or			
regional comprehensive plan, in a Shoreline Master Plan, or in a			
watershed plan			
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1			
Site does not meet any of the criteria above points = 0 Rating of Value If Score is: 2 = H 1 = M 0 = L Record the rating on	the first need		
realing of value if Score is. 🗀 🗸 – IT 🔛 II – IVI 🔛 U – L 💢 – Record the rating on	uie iiisi paye		

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

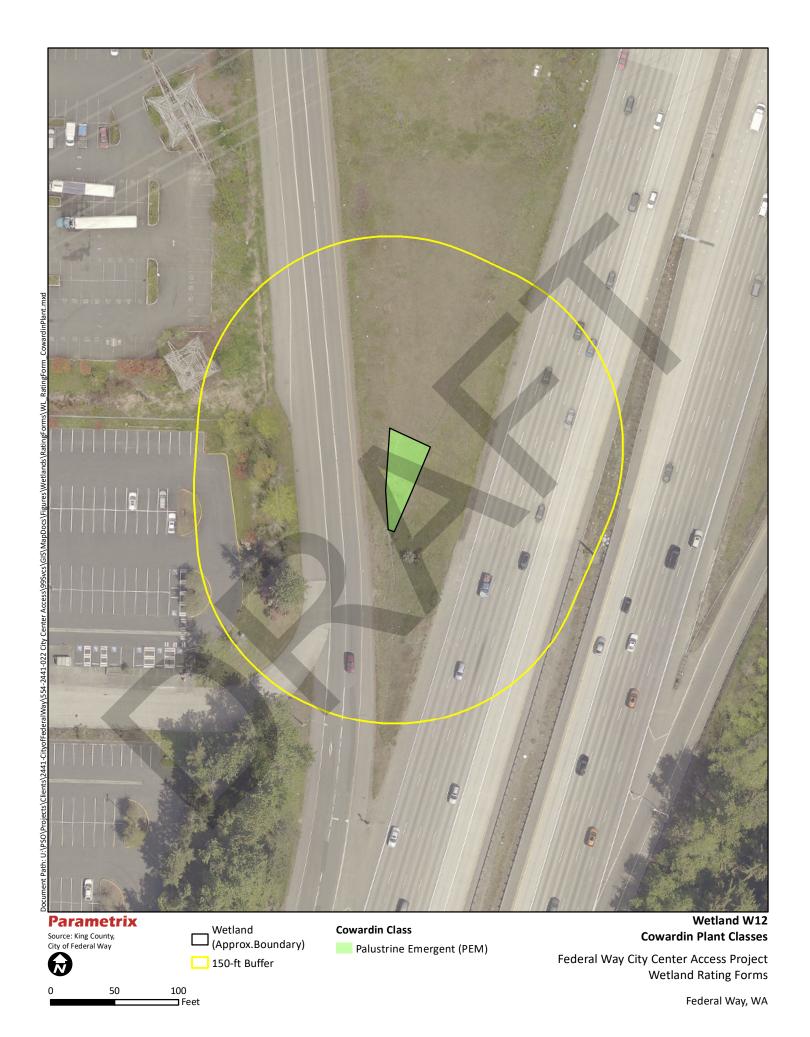
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
Old-growth/Mature forests : Old-growth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

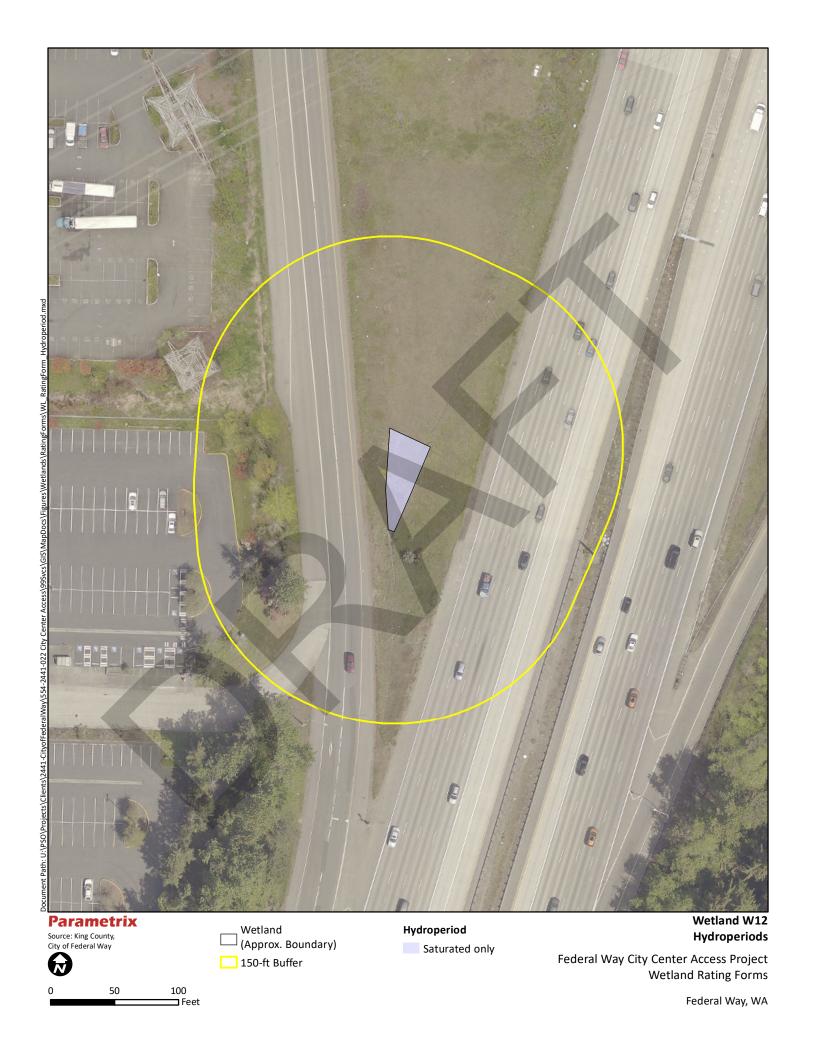
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

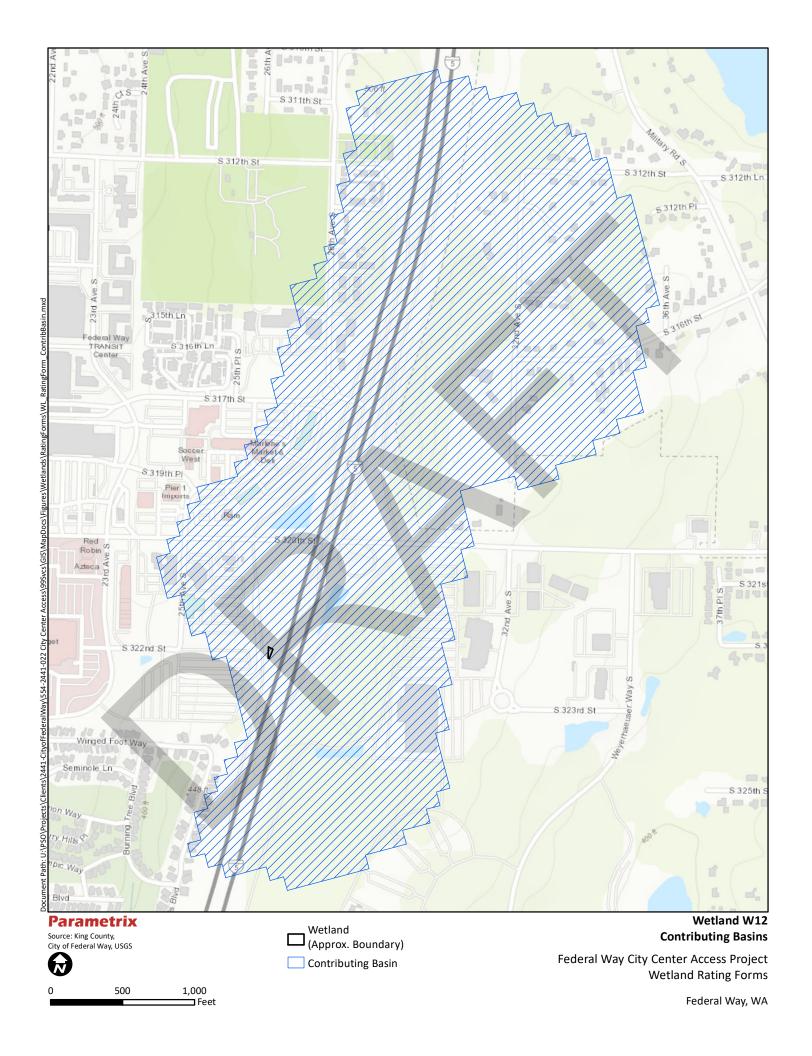
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

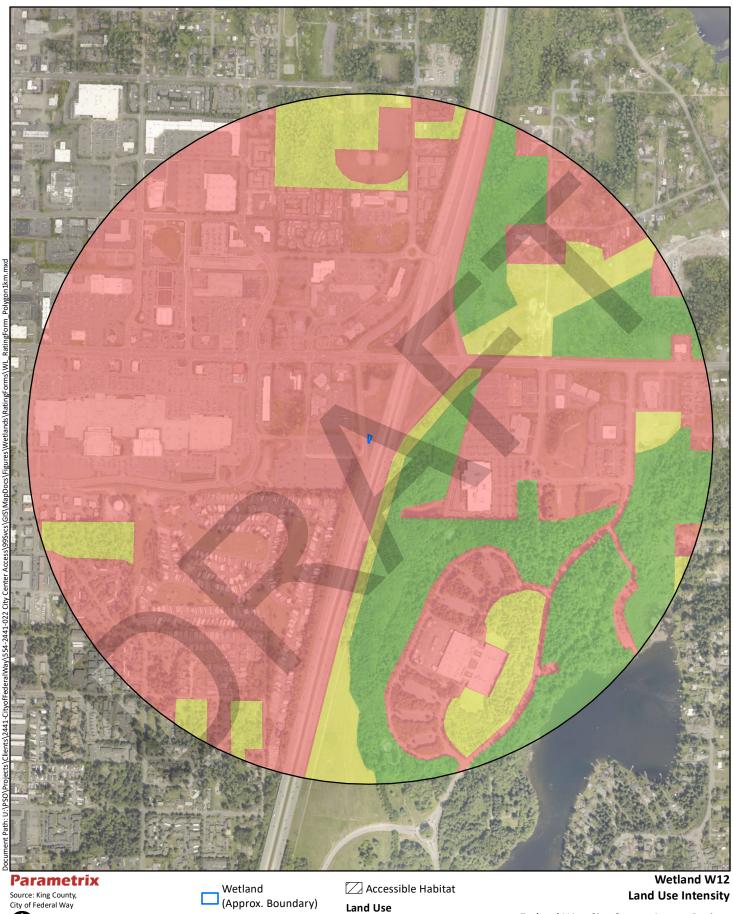
Wetland	Туре	Category				
Chaok of	Form, with vious that annuly to the westland. Liet the code comply they the convention with vious and					
	f any criteria that apply to the wetland. List the category when the appropriate criteria are met.					
SC 1.0. Estuarine Wetlands Does the wetland meet the following criteria for Estuarine wetlands?						
	The dominant water regime is tidal,					
	Vegetated, and					
	With a salinity greater than 0.5 ppt					
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland					
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,					
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve					
	designated under WAC 332-30-151?					
	☐ Yes = Category I ☐ No - Go to SC 1.2					
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?					
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,					
	and has less than 10% cover of non-native plant species. (If non-native species are					
	Spartina, see page 25)					
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-					
	grazed or un-mowed grassland.					
	The wetland has at least two of the following features: tidal channels, depressions with					
	open water, or contiguous freshwater wetlands.					
	☐ Yes = Category I ☐ No = Category II					
	Wetlands of High Conservation Value (WHCV)					
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of					
	Wetlands of High Conservation Value?					
0000	☐ Yes - Go to SC 2.2 ☑ No - Go to SC 2.3					
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?					
0000	☐ Yes = Category I ☐ No = Not WHCV					
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf					
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV					
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation					
30 2.4.	Value and listed it on their website?					
	☐ Yes = Category I ☐ No = Not WHCV					
SC 3.0. I						
00 3.0. 1	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in					
	bogs? Use the key below. If you answer YES you will still need to rate the wetland					
	based on its functions					
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,					
	that compose 16 in or more of the first 32 in of the soil profile?					
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2					
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are					
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic					
	ash, or that are floating on top of a lake or pond?					
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog					
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,					
	AND at least a 30% cover of plant species listed in Table 4?					
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4					
	NOTE: If you are uncertain about the extent of mosses in the understory, you may					
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at					
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,					
	the wetland is a bog.					
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,					
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,					
	or western white pine, AND any of the species (or combination of species) listed in Table					
	4 provide more than 30% of the cover under the canopy?					
	☐ Yes = Is a Category I bog ☐ No = Is not a bog					

CC 4.0	Forested Wetlands	
SC 4.U.		
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	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 aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
_	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
_		
22.00	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
_	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
	☐ Yes = Category III ☐ No = Category IV	
Catego	ry of wetland based on Special Characteristics	
_	swered No for all types, enter "Not Applicable" on Summary Form	











1,000 Feet 500

1-km Polygon

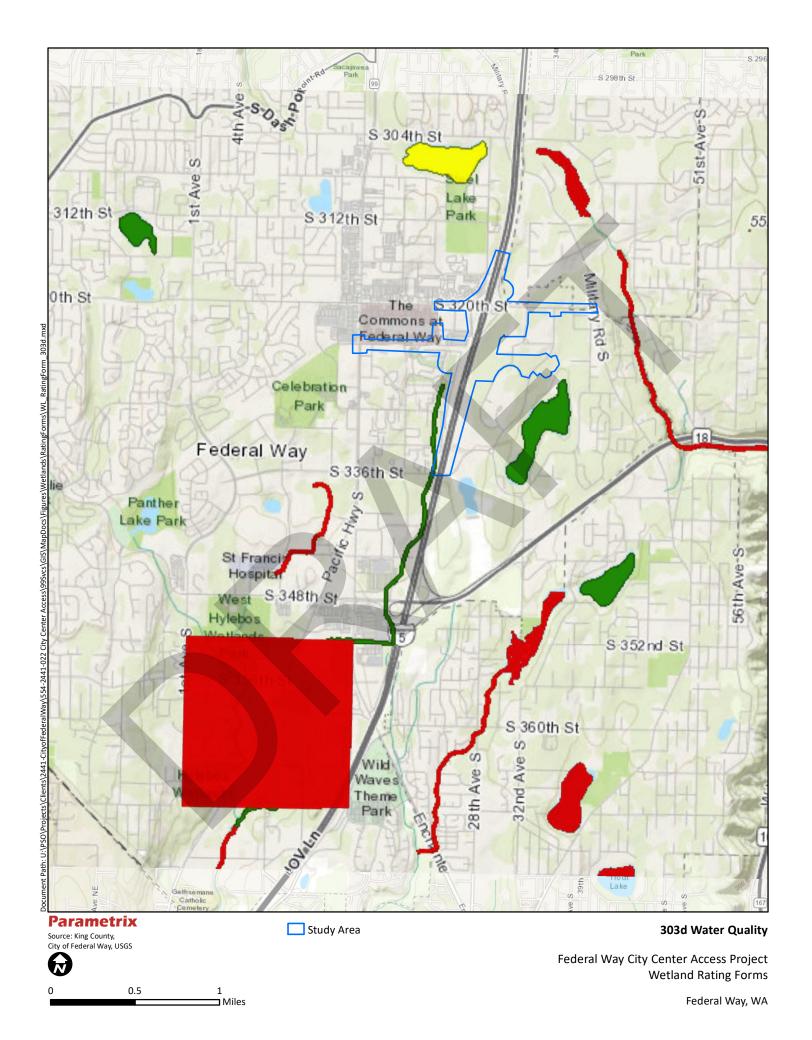
High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



RATING SUMMARY – Western Washington

Name of wetland (or	ID #): <u>W13</u>					_ D	ate of site visit:	9/2/2020
Rated by Per Johnso	on, Aaron Thom	_ Tr	ained by E	cology?⊡	Yes□	No	Date of training	2014
HGM Class used for	rating Depression	nal & Flats		Wetland	l has mult	iple HC	GM classes? □ Y	es ☑ No
	NOTE: Form is not complete with out the figures requested (figures can be combined). Source of base aerial photo/map							
	OVERALL WETLAND CATEGORY III (based on functions ☑ or special characteristics □)							
1. Category of w	etland based on							
	Category 1	I - Total score	= 23 - 27			Scor	e for each	Ť
	Category 1	II - Total score	e = 20 - 22			func	tion based	
	X Category	III - Total scor	e = 16 - 19			on th	ree	
	Category	IV - Total scor	e = 9 - 15			ratin	gs	
•						(orde	er of ratings	
FUNCTION	Improving Water Quality	Hydrologic	Habitat			is no impo	t rtant)	
	List appropriate rating (H, M, L)							
Site Potential	M	L	М			9 = F	I, H, H	
Landscape Potential	M	Н	L			8 = F	I, H, M	
Value	M	M	L	Total		7 = F	I, H, L	
Score Based on Ratings	6	6	4	16			I, M, M I, M, L	
						16 = 1	4 N4 N4	

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	iods of annual low flow below 0.5 ppt (parts per thousand)?
		Freshwater Tidal Fringe use the forms for Riverine wetlands. If stuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitativater and surface water runoff are NO	on is the only source (>90%) of water to it. T sources of water to the unit.
☑	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats a Flats wetland, use the form for Depressional wetlands.
		on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope car</i>). The water flows through the wetland may flow subsurface, as sheetflow, on The water leaves the wetland witho .	be very gradual), in one direction (unidirectional) and usually comes from seeps. It or in a swale without distinct banks.
V	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream cha from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding
	NO - go to 6	☐ YES - The wetland class is Riverine
	· ·	ons that are filled with water when the river is not flooding.

Wetland	name or number	W13	

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			
•	lat area with no obvious depression and no overbank flooding? The few inches. The unit seems to be maintained by high groundwater has no obvious natural outlet.			

☑ NO - go to 8
 ☐ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS: No outlet observed, but presumed.

DEPRESSIONAL AND FLATS WETLANDS				
Water Quality Functions - Indicators that the site functions to improve water quality				
D 1.0. Does the site have the potential to improve water quality?				
D 1.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression (QUESTION 7 on key)				
with no surface water leaving it (no outlet).	points = 3			
Wetland has an intermittently flowing stream or ditch, OR highly		•		
constricted permanently flowing outlet.	points = 2	2		
 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing 	points = 1			
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a				
permanently flowing ditch.	points = 1			
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0		
(use NRCS definitions).	Yes = 4 No = 0	0		
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shr	rub, and/or Forested			
Cowardin classes):				
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	5		
Wetland has persistent, ungrazed, plants > ½ of area	points = 3			
Wetland has persistent, ungrazed plants $> \frac{1}{10}$ of area	points = 1	•		
Wetland has persistent, ungrazed plants $< \frac{1}{10}$ of area	points = 0			
D 1.4. Characteristics of seasonal ponding or inundation:				
This is the area that is ponded for at least 2 months. See description				
Area seasonally ponded is > ½ total area of wetland	points = 4	2		
Area seasonally ponded is > 1/4 total area of wetland	points = 2			
Area seasonally ponded is < 1/4 total area of wetland	points = 0			
	s in the boxes above	9		
Rating of Site Potential If score is: 12 - 16 = H	Record the rating on	the first page		
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?			
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1		
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that				
generate pollutants?	Yes = 1 No = 0	1		
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0		
D 2.4. Are there other sources of pollutants coming into the wetland that are				
not listed in questions D 2.1 - D 2.3?		0		
Source	Yes = 1 No = 0			
	s in the boxes above	2		
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L	. Record the rating on	the first page		
D 3.0. Is the water quality improvement provided by the site valuable to society?	?			
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0		
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	U		
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	e 303(d) list?	1		
	Yes = 1 No = 0			
D 3.3. Has the site been identified in a watershed or local plan as important for				
maintaining water quality (answer YES if there is a TMDL for the basin in which		0		
the unit is found)?	Yes = 2 No = 0			
	s in the boxes above	1		
Rating of Value If score is: □ 2-4=H ☑ 1=M □ 0=L	Record the rating on	the first page		

<u>DEPRESSIONAL AND FLATS WETLANDS</u>				
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation				
D 4.0. Does the site have the potential to reduce flooding and erosion?				
D 4.1. Characteristics of surface water outflows from the wetland:				
Wetland is a depression or flat depression with no surface water				
leaving it (no outlet) points = 4				
Wetland has an intermittently flowing stream or ditch, OR highly constricted permanently flowing outlet points = 2	2			
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	۷			
permanently flowing ditch points = 1				
Wetland has an unconstricted, or slightly constricted, surface outlet				
that is permanently flowing points = 0				
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the				
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the				
deepest part.				
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7				
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0			
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3				
☐ The wetland is a "headwater" wetland points = 3				
Wetland is flat but has small depressions on the surface that trap water points = 1				
Marks of ponding less than 0.5 ft (6 in) points = 0				
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of				
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.				
☐ The area of the basin is less than 10 times the area of the unit points = 5	0			
The area of the basin is 10 to 100 times the area of the unit points = 3	· ·			
The area of the basin is more than 100 times the area of the unit points = 0				
☐ Entire wetland is in the Flats class points = 5				
Total for D 4 Add the points in the boxes above	2			
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page			
D 5.0. Does the landscape have the potential to support hydrologic function of the site?				
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1			
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1			
Yes = 1 No = 0				
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1			
Yes = 1 No = 0	1			
Total for D 5 Add the points in the boxes above	3			
Rating of Landscape Potential If score is: ☑ 3 = H □ 1 or 2 = M □ 0 = L Record the rating on				
	trie iirst page			
D 6.0. Are the hydrologic functions provided by the site valuable to society?				
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best				
matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> score if more than one condition is met.				
The wetland captures surface water that would otherwise flow down-gradient into areas				
where flooding has damaged human or natural resources (e.g., houses or salmon redds):				
Flooding occurs in a sub-basin that is immediately down-				
gradient of unit.				
Surface flooding problems are in a sub-basin farther down-	1			
gradient. points = 1				
☐ Flooding from groundwater is an issue in the sub-basin. points = 1				
☐ The existing or potential outflow from the wetland is so constrained				
by human or natural conditions that the water stored by the wetland				
cannot reach areas that flood. Explain why points = 0				
☐ There are no problems with flooding downstream of the wetland. points = 0				
D 6.2. Has the site been identified as important for flood storage or flood				
conveyance in a regional flood control plan? Yes = 2 No = 0				
Total for D 6 Add the points in the boxes above	1			
Rating of Value If score is: 2 - 4 = H				

These questions apply to wetlands	of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat		
H 1.0. Does the site have the potential to provide habitat?		
H 1.1. Structure of plant community: <i>Indicators are Cowardin class</i> . Forested class. Check the Cowardin plant classes in the wetland combined for each class to meet the threshold of ½ ac or more that than 2.5 ac. Add the number of structures checked.	. Up to 10 patches may be	
 □ Aquatic bed ☑ Emergent ☑ Scrub-shrub (areas where shrubs have > 30% cover) ☑ Forested (areas where trees have > 30% cover) If the unit has a Forested class, check if: □ The Forested class has 3 out of 5 strata (canopy, sub-composs/ground-cover) that each cover 20% within the Forested by the cover 20% within the Forested class has 3 out of 5 strata 		2
H 1.2. Hydroperiods		
Check the types of water regimes (hydroperiods) present within the to cover more than 10% of the wetland or ¼ ac to count (see text	for descriptions of hydroperiods).	
 □ Permanently flooded or inundated □ Seasonally flooded or inundated 	or more types present: points = 3 3 types present: points = 2	1
 ☑ Occasionally flooded or inundated 	2 types present: points = 1	'
☑ Saturated only	1 types present: points = 0	
☐ Permanently flowing stream or river in, or adjacent to, the		
☐ Seasonally flowing stream in, or adjacent to, the wetland		
 □ Lake Fringe wetland □ Freshwater tidal wetland 	2 points 2 points	
H 1.3. Richness of plant species		
Count the number of plant species in the wetland that cover at lea	st 10 ft ² .	
Different patches of the same species can be combined to meet to have to name the species. Do not include Eurasian milfoil, ree		
loosestrife, Canadian thistle	u canarygrass, purpie	1
roccount, curiation thous		·
If you counted: > 19 species	points = 2	
5 - 19 species	points = 1	
< 5 species H 1.4. Interspersion of habitats	points = 0	
Decide from the diagrams below whether interspersion among Co	wardin plants classes (described	
in H 1.1), or the classes and unvegetated areas (can include oper		
moderate, low, or none. If you have four or more plant classes or		
the rating is always high.		
		3
None = 0 points Low = 1 point	Moderate = 2 points	Ü
None = 0 points Low = 1 point	Moderate = 2 points	
All three diagrams in this row are HIGH = 3 points		
THOM - 5 points		

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of che</i>	cks is the number of	
points.	cks is the number of	
·	d 6 ft long)	
 ☑ Large, downed, woody debris within the wetland (> 4 in diameter and ☑ Standing snags (dbh > 4 in) within the wetland 	u o it iorig)	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhand	ring plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the w	reliand, for al least	3
33 ft (10 m)	manual mat for dominar	3
☐ Stable steep banks of fine material that might be used by beaver or		
(> 30 degree slope) OR signs of recent beaver activity are present (cut stitubs of trees	
that have not yet weathered where wood is exposed)	are present in street	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches a		
that are permanently or seasonally inundated (<i>structures for egg-lay</i>		
☑ Invasive plants cover less than 25% of the wetland area in every stra	atum of plants (see H	
1.1 for list of strata)		
	ts in the boxes above	10
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of		
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate:		
0 % undisturbed habitat + (0 % moderate & low intensity la	nd uses / 2) = 0%	
If total accessible habitat is:		0
> ¹ / ₃ (33.3%) of 1 km Polygon	points = 3	
20 - 33% of 1 km Polygon	points = 2	
10 - 19% of 1 km Polygon	points = 1	
< 10 % of 1 km Polygon H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	points = 0	
Calculate:		
21 % undisturbed habitat + (22 % moderate & low intensity la	nd uses / 2 \ = 32%	
21 % undisturbed habitat 1 (22 % moderate & low intensity ha	11d d363 / 2) = 32 /0	
Undisturbed habitat > 50% of Polygon	points = 3	1
Undisturbed habitat 10 - 50% and in 1-3 patches	points = 2	
Undisturbed habitat 10 - 50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	points – o	
> 50% of 1 km Polygon is high intensity land use	points = (-2)	-2
≤ 50% of 1km Polygon is high intensity	points = (-2)	-2
	•	
	ts in the boxes above	-1
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M 2 < 1 = I	L Record the rating on	tne tirst page
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or	policies? Choose	
only the highest score that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
☐ It has 3 or more priority habitats within 100 m (see next pa	•	
☐ It provides habitat for Threatened or Endangered species	- ,	
or animal on the state or federal lists)	()	
☐ It is mapped as a location for an individual WDFW priority	species	
☐ It is a Wetland of High Conservation Value as determined	-	0
Department of Natural Resources	-,	
☐ It has been categorized as an important habitat site in a lo	cal or	
regional comprehensive plan, in a Shoreline Master Plan,		
	orin a	
The state of the s	or in a	
watershed plan		
· · · · · · · · · · · · · · · · · · ·	or in a points = 1 points = 0	

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

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

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

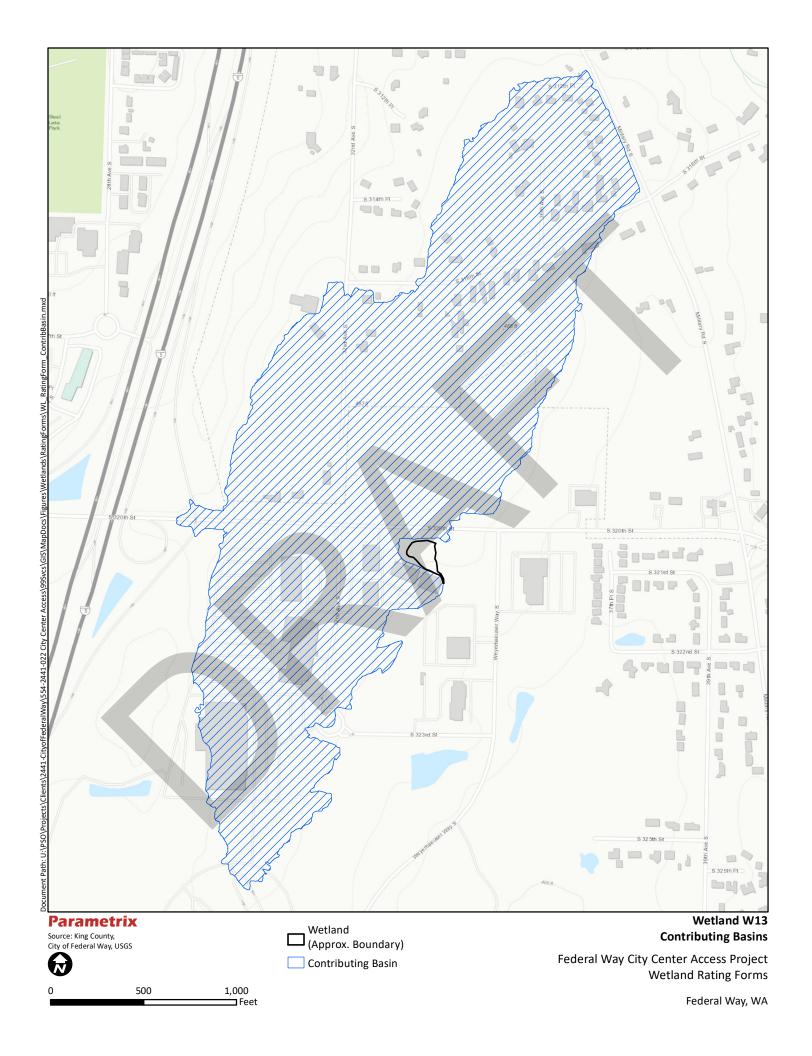
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

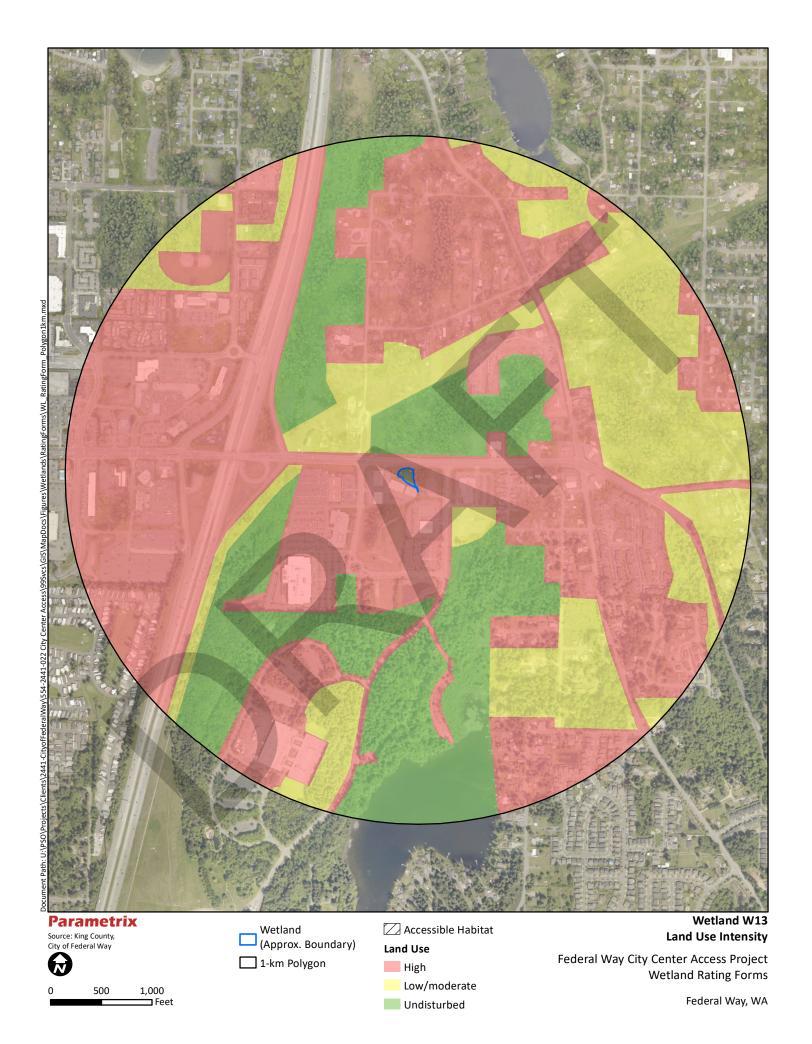
Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
-	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☑ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
_	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
0000	☐ Yes = Category I ☐ No = Category II	
	Vetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of	
30 2.1.	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00 2.2.	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E	Bogs	
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond?	
SC 3.3.	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
30 3.3.	AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	

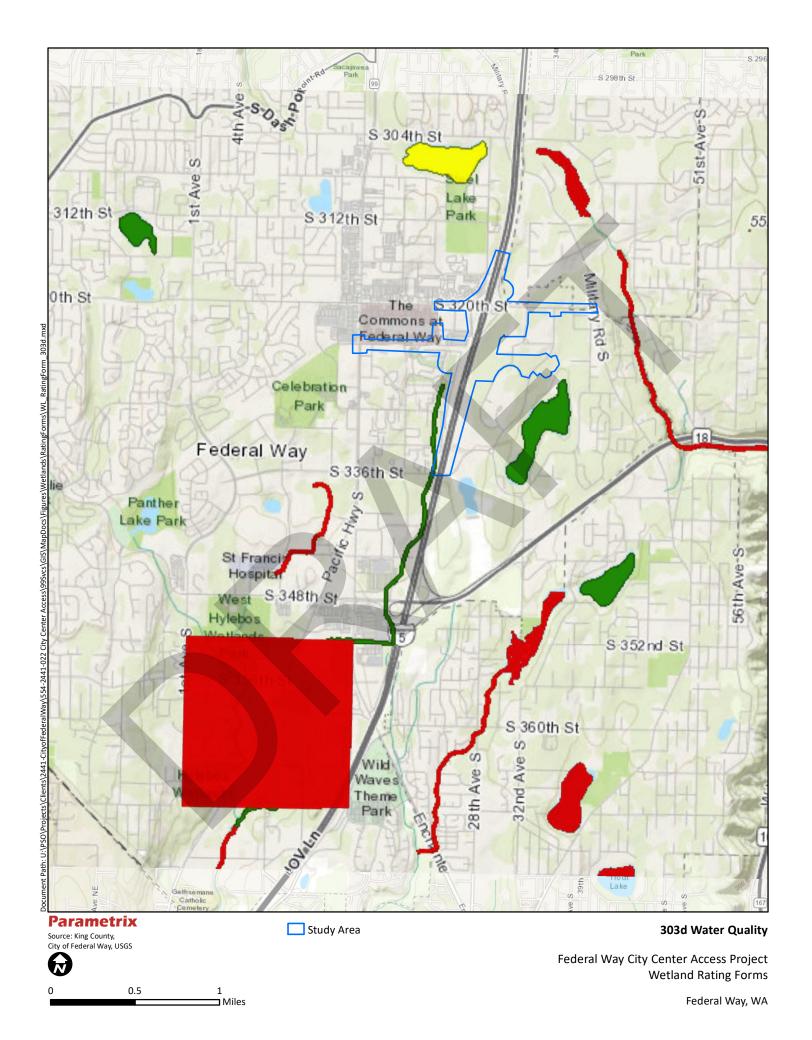
SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	answer YES you will still need to rate the wetland based on its functions.	
	Old-growth 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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80-200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
	be measured near the bottom)	
	☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
SC 5.1.	Does the wetland meet all of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
_	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland based on its habitat functions.	
	In practical terms that means the following geographic areas: Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
00 0.1.	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
33 0.2.	Yes = Category II □ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
30 0.0.	1 ac?	
	□ Yes = Category III □ No = Category IV	
Categor	y of wetland based on Special Characteristics	
_	swered No for all types, enter "Not Applicable" on Summary Form	











RATING SUMMARY – Western Washington

Name of wetland (or	ID #): W14					Date of site v	risit: 9/2/2020
Rated by Per Johnson, Aaron Thom		<u>n</u> T	rained by E	cology?⊡	Yes□	No Date of tr	raini <u>ng</u> 2014
HGM Class used for	rating Depre	essional & Flats		Wetland	d has mult	iple HGM classes?	'□ Yes ☑ No
		plete with out the e aerial photo/map	_	equested (figures ca	n be combined).	_
	OVERALL WETLAND CATEGORY III (based on functions ☑ or special characteristics ☐)						
1. Category of w						Score for each	
Category I - Total score = 23 - 27							
Category II - Total score = 20 - 22			function based				
	X Category III - Total score = 16 - 19 Category IV - Total score = 9 - 15				on three		
	Categ	jory IV - Total sco	re = 9 - 15			ratings	
			10.100	1		(order of ratings	
FUNCTION	Improving		Habitat			is not	
	Water Qual	•	4444			important)	
		t appropriate ratin	,				
Site Potential	M	L	M			9 = H, H, H	
Landscape Potential	M	Н	L			8 = H, H, M	
Value	M	M	M	Total		7 = H, H, L	
Score Based on Ratings	6	6	4	16		7 = H, M, M 6 = H, M, L	
					•	6 = M, M, M	

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides	except during floods?
✓	NO - go to 2	☐ YES - the wetla	nd class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	iods of annual low fl	ow below 0.5 ppt (parts per thousand)?
	•	a Freshwater Tidal F stuarine wetland ar	☐ YES - Freshwater Tidal Fringe Fringe use the forms for Riverine wetlands. In add is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO		
✓	NO - go to 3 If your wetland can be classified as a	a Flats wetland, use	☐ YES - The wetland class is Flats the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a k he year) at least 20	
✓	NO - go to 4	☐ YES - The wetla	and class is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i> The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland withous	be very gradual), in one direction (un or in a swale without	
☑	NO - go to 5		☐ YES - The wetland class is Slope
	Surface water does not pond in these tooks or behind hummocks (depression		ept occasionally in very small and shallow iameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets in	
	NO - go to 6	. ,	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depression	ons that are filled wi	th water when the river is not flooding.

Wetland	name or number	W14	
vvenano	name or number	VV 14	

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

☑ NO - go to 7 ☐ YES - The wetland class is **Depressional**

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

□ NO - go to 8 □ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Assumed culvert under 320th (mapped, but not observed). No right of entry.

DEPRESSIONAL AND FLATS WETLANDS				
Water Quality Functions - Indicators that the site functions to improve water quality				
D 1.0. Does the	site have the potential to improve water quality?			
D 1.1. Characte	ristics of surface water outflows from the wetland:			
Wetla	nd is a depression or flat depression (QUESTION 7 on key)			
	o surface water leaving it (no outlet).	points = 3		
	nd has an intermittently flowing stream or ditch, OR highly			
	icted permanently flowing outlet.	points = 2	2	
	nd has an unconstricted, or slightly constricted, surface outlet			
	permanently flowing	points = 1		
	nd is a flat depression (QUESTION 7 on key), whose outlet is a nently flowing ditch.	points = 1		
	in below the surface (or duff layer) is true clay or true organic	points - i		
(use NRCS defin		Yes = 4 No = 0	0	
,	istics and distribution of persistent plants (Emergent, Scrub-shr			
Cowardin classe		ub, and/or r orested		
	nd has persistent, ungrazed, plants > 95% of area	points = 5		
	nd has persistent, ungrazed, plants > ½ of area	points = 3	5	
	nd has persistent, ungrazed plants > $^{1}/_{10}$ of area	points = 1		
	and has persistent, ungrazed plants $< \frac{1}{10}$ of area	points = 0		
	ristics of seasonal ponding or inundation:	решие		
	the area that is ponded for at least 2 months. See description is	n manual.		
	easonally ponded is > ½ total area of wetland	points = 4	0	
	easonally ponded is > 1/4 total area of wetland	points = 2	· ·	
	easonally ponded is < 1/4 total area of wetland	points = 0		
Total for D 1		in the boxes above	7	
	otential If score is: ☐ 12 - 16 = H ☑ 6 - 11 = M ☐ 0 - 5 = L		-	
D 2.0. Does the	landscape have the potential to support the water quality function	on of the site?		
D 2.1. Does the	wetland unit receive stormwater discharges?	Yes = 1 No = 0	1	
	of the area within 150 ft of the wetland in land uses that		1	
generate polluta		Yes = 1 No = 0		
	septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0	
	other sources of pollutants coming into the wetland that are			
	stions D 2.1 - D 2.3?		0	
Source		Yes = 1 No = 0	_	
Total for D 2		in the boxes above	2	
Rating of Lands	cape Potential If score is: ☐ 3 or 4 = H ☑ 1 or 2 = M ☐ 0 = L	Record the rating on	the first page	
D 3.0. Is the war	er quality improvement provided by the site valuable to society?			
	wetland discharge directly (i.e., within 1 mi) to a stream, river,		0	
	vater that is on the 303(d) list?	Yes = 1 No = 0	0	
D 3.2. Is the we	land in a basin or sub-basin where an aquatic resource is on the	e 303(d) list?	1	
		Yes = 1 No = 0	•	
	ite been identified in a watershed or local plan as important for			
	er quality (answer YES if there is a TMDL for the basin in which		0	
the unit is found	•	Yes = 2 No = 0		
Total for D 3	·	in the boxes above	1	
Rating of Value	f score is: □ 2-4=H ☑ 1=M □ 0=L	Record the rating on	the first page	

DEPRESSIONAL AND FLATS WETLANDS					
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation					
D 4.0. Does the site have the potential to reduce flooding and erosion?					
D 4.1. Characteristics of surface water outflows from the wetland:					
Wetland is a depression or flat depression with no surface water					
leaving it (no outlet) points = 4					
Wetland has an intermittently flowing stream or ditch, OR highly					
constricted permanently flowing outlet points = 2	2				
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a					
permanently flowing ditch points = 1					
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0					
that is permanently flowing points = 0 D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the					
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the					
deepest part.					
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7					
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0				
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3					
☐ The wetland is a "headwater" wetland points = 3					
Wetland is flat but has small depressions on the surface that trap water points = 1					
Marks of ponding less than 0.5 ft (6 in)					
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of					
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.					
☐ The area of the basin is less than 10 times the area of the unit points = 5	0				
The area of the basin is 10 to 100 times the area of the unit points = 3	U				
The area of the basin is more than 100 times the area of the unit points = 0					
☐ Entire wetland is in the Flats class points = 5					
Total for D 4 Add the points in the boxes above	2				
Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the rating on the score is:	the first page				
D 5.0. Does the landscape have the potential to support hydrologic function of the site?					
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1				
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1				
Yes = 1 No = 0	ı				
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land					
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1				
Yes = 1 No = 0					
Total for D 5 Add the points in the boxes above	3				
Rating of Landscape Potential If score is: \square 3 = H \square 1 or 2 = M \square 0 = L Record the rating on the	the first page				
D 6.0. Are the hydrologic functions provided by the site valuable to society?					
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best					
matches conditions around the wetland unit being rated. Do not add points. Choose the highest					
score if more than one condition is met.					
The wetland captures surface water that would otherwise flow down-gradient into areas					
where flooding has damaged human or natural resources (e.g., houses or salmon redds):					
Flooding occurs in a sub-basin that is immediately down-					
gradient of unit. points = 2	1				
 Surface flooding problems are in a sub-basin farther down- 					
gradient. points = 1					
☐ Flooding from groundwater is an issue in the sub-basin. points = 1					
☐ The existing or potential outflow from the wetland is so constrained					
by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0					
· · · ·					
☐ There are no problems with flooding downstream of the wetland. points = 0 D 6.2. Has the site been identified as important for flood storage or flood					
conveyance in a regional flood control plan? Yes = 2 No = 0					
·	4				
Total for D 6 Add the points in the boxes above	1 1				

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

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

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of checks is the number of</i>	
points.	
☑ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☑ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends a	ıt
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	3
☐ Stable steep banks of fine material that might be used by beaver or muskrat for denning	
(> 30 degree slope) OR signs of recent beaver activity are present (cut shrubs or trees	
that have not yet weathered where wood is exposed)	,
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see h	1
1.1 for list of strata)	
Total for H 1 Add the points in the boxes abov	
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating of Site Potential If Score is:	ın ine iirsi page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
7 % undisturbed habitat + (3 % moderate & low intensity land uses / 2) = 8.5%	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points =	3
20 - 33% of 1 km Polygon points =	2
10 - 19% of 1 km Polygon points =	
< 10 % of 1 km Polygon points =	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	-
Calculate:	
18 % undisturbed habitat + (8 % moderate & low intensity land uses / 2) = 32%	
Undisturbed habitat > 50% of Polygon points =	3 1
Undisturbed habitat 10 - 50% and in 1-3 patches points =	
Undisturbed habitat 10 - 50% and > 3 patches Undisturbed habitat 10 - 50% and > 3 patches points =	
Undisturbed habitat < 10% of 1 km Polygon points =	
H 2.3 Land use intensity in 1 km Polygon: If	
> 50% of 1 km Polygon is high intensity land use points = (-2	2) -2
≤ 50% of 1km Polygon is high intensity and dec	-
Total for H 2 Add the points in the boxes abov	
Rating of Landscape Potential If Score is: 4-6=H 1-3=M 2<1=L Record the rating of	
	m are met page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points =	2
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	1
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points =	1
Site does not meet any of the criteria above points =	
Rating of Value If Score is: 2 = H 1 = M 0 = L Record the rating of Value If Score is: 2 = H 2 = H 3 = M 3 = M 4 = M 4 = M 5 = M 5 = M 6 = M 7 = M 7 = M 7 = M 7 = M 8 = M 7	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

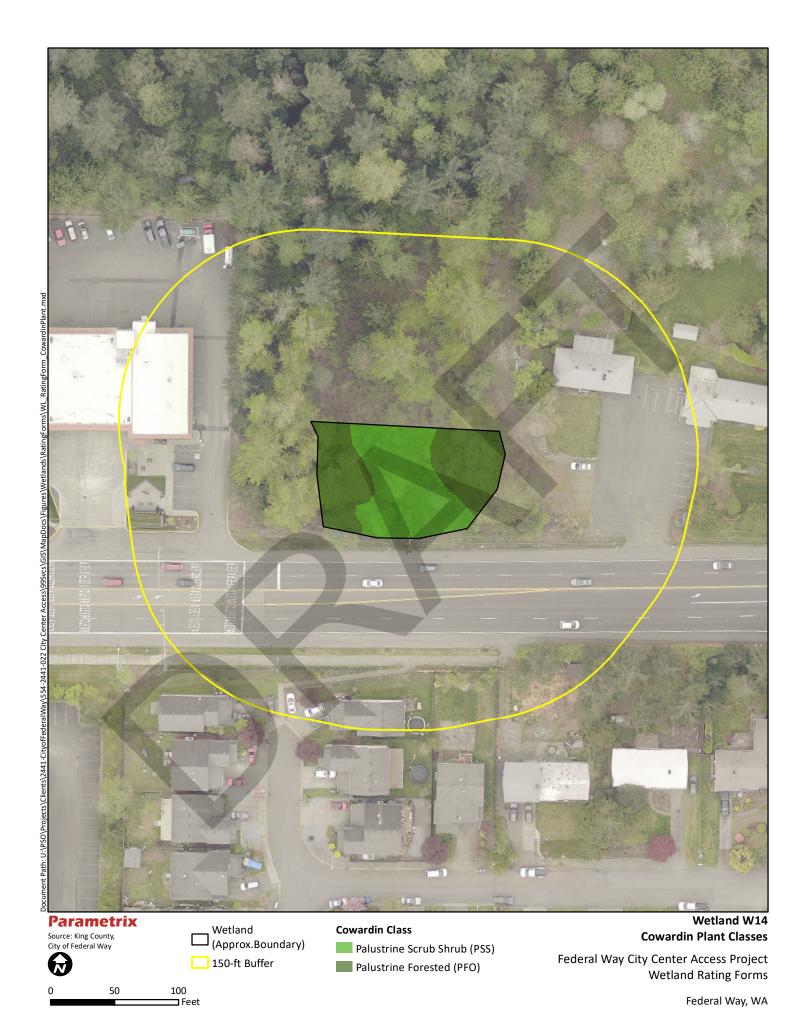
	Aspen Stands : Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
	Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
	Herbaceous Balds: Variable size patches of grass and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

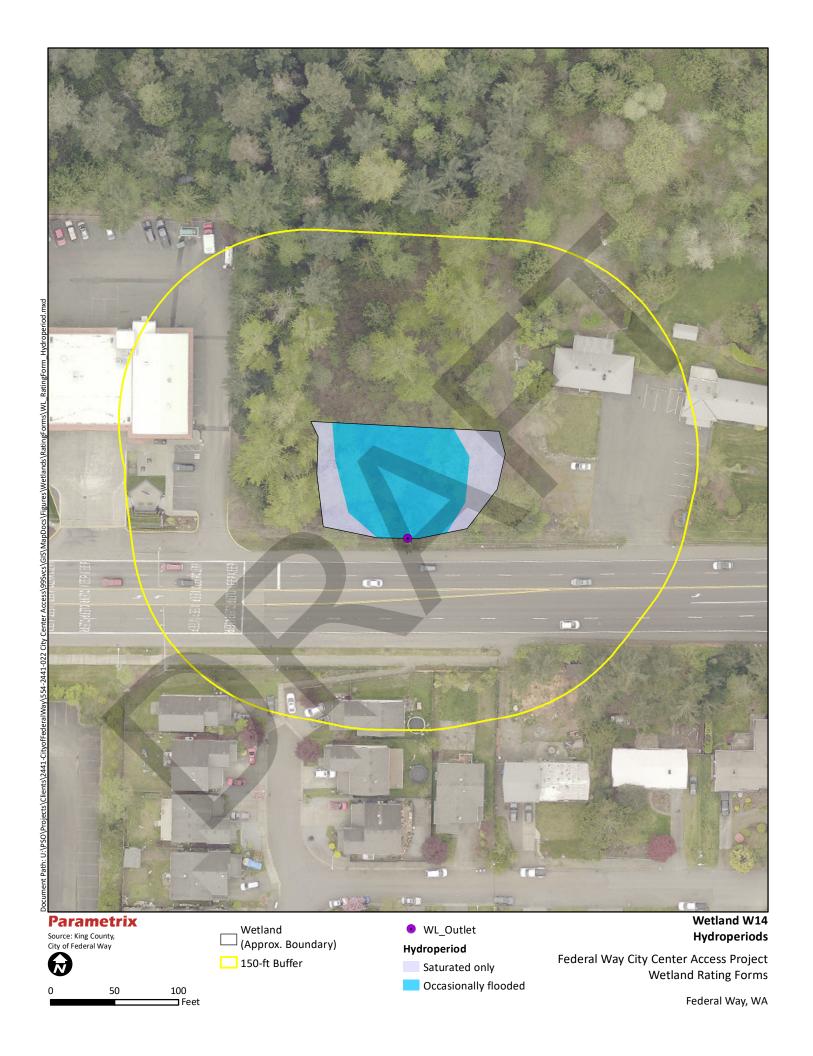
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

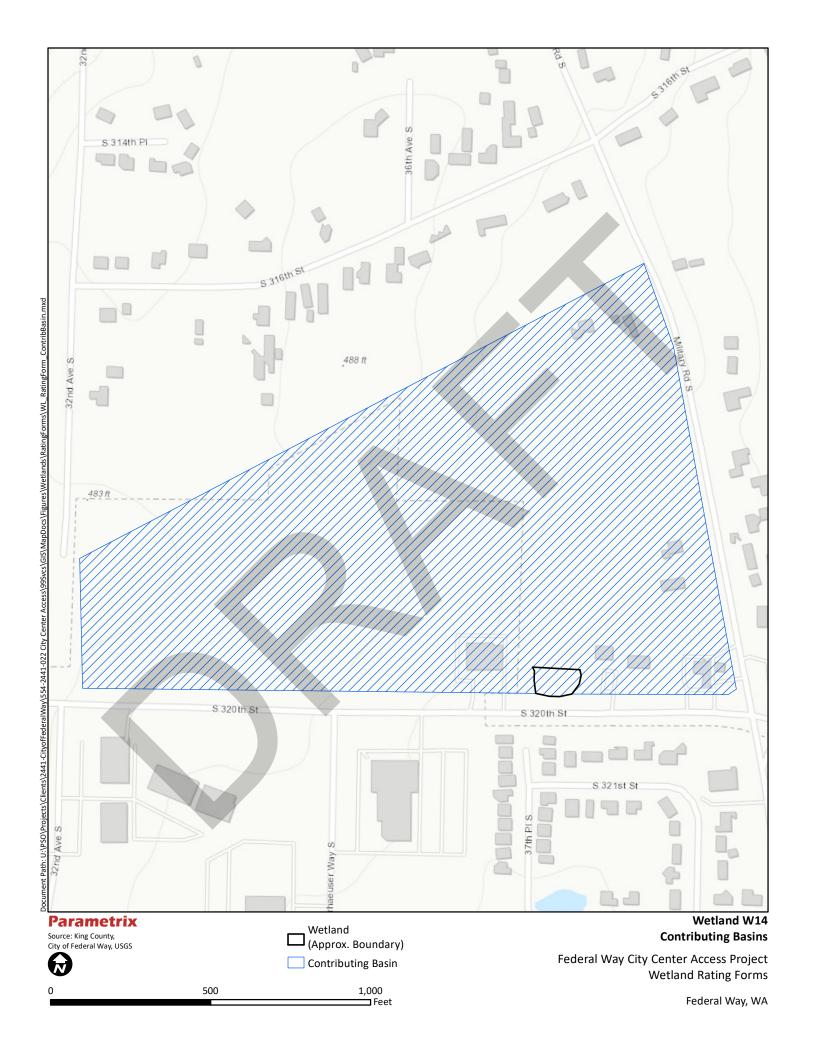
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

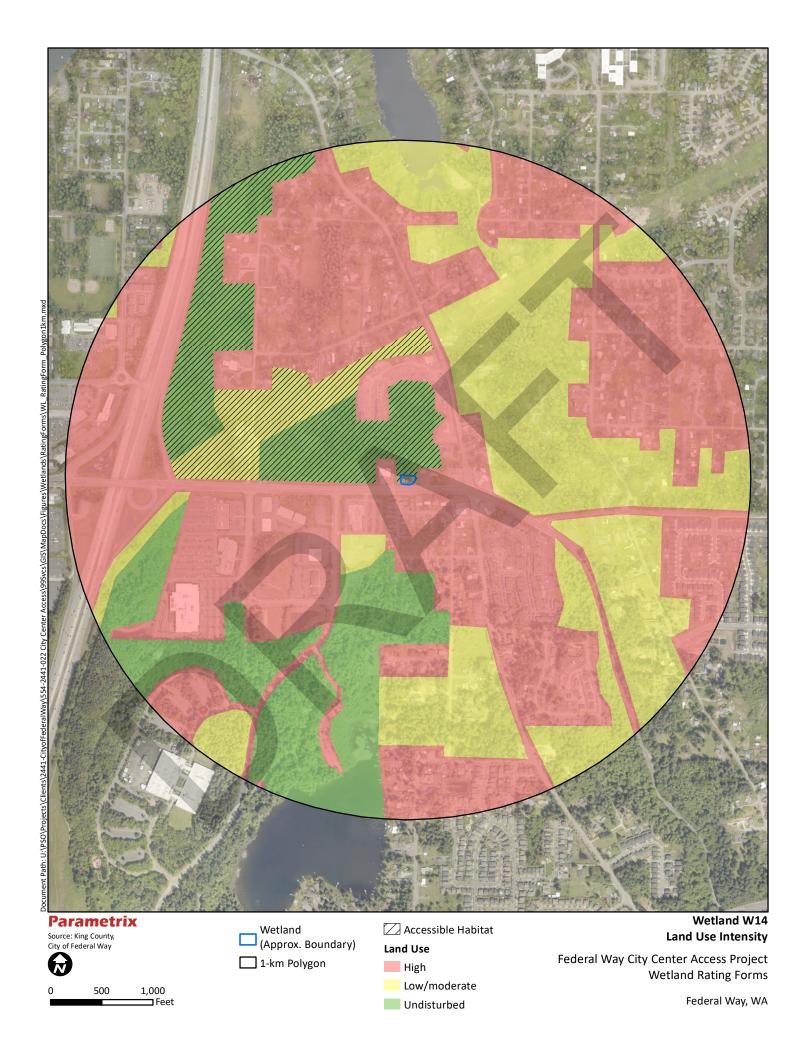
□ The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are Spartina, see page 25) □ At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or ungrazed or un-mowed grassland. □ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □ The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. □ Yes = Category I □ No = Category II SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? □ Yes = Go to SC 2.2 □ No - Go to SC 2.3 SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? □ Yes = Category I □ No = Not WHCV SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? □ Yes - Contact WNHP/WDNR and to SC 2.4 □ No = Not WHCV SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? □ Yes = Category I □ No = Not WHCV SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? Use the key below. If you answer YES you will still need to rate the wetland based on its functions. SC 3.1. Does an area within the wetland unit have organic soils, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? □ Yes - Go to SC 3.3 □ No - Go to SC 3.2 SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? □ Yes - Go to SC 3.3 □ No - Go to SC 3.4 NOTE: If you are uncertain about the extent of	Wetland	Туре	Category
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		☐ Yes = Is a Category I bog ☐ No = Is not a bog	

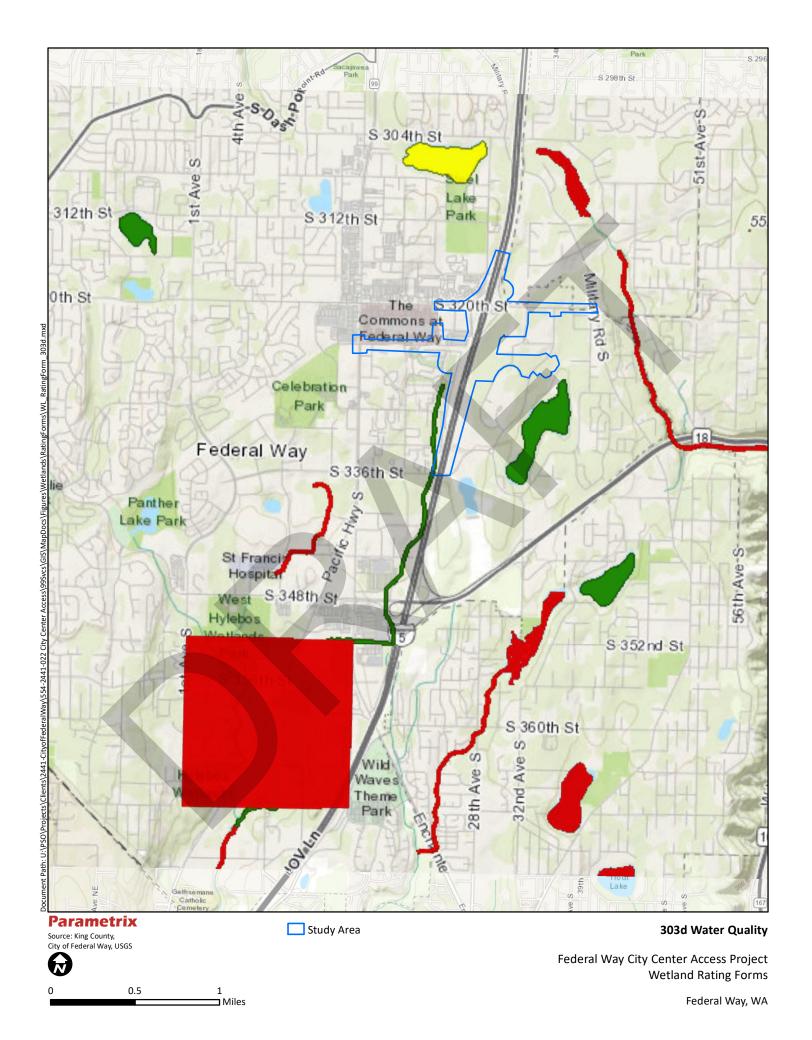
SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	answer YES you will still need to rate the wetland based on its functions.	
	Old-growth 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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
	32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
_	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
_	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
	be measured near the bottom)	-
00 5 4	☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
	Does the wetland meet all of the following three conditions? The wetland is relatively undisturbed (here no diking, ditabling, filling, cultivation, grazing)	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
_	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
-		
SC 6.0	☐ Yes = Category I ☐ No = Category II Interdunal Wetlands	
30 0.0.	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
	□ Yes = Category III □ No = Category IV	
_	ry of wetland based on Special Characteristics	
If you ar	nswered No for all types, enter "Not Applicable" on Summary Form	











Ratings

RATING SUMMARY – Western Washington

Name of wetland (or	ID #): W15					D	ate of site visit:	9/2/2020
Rated by Per Johns	on, Aaron Thom	Ti	rained by E	cology?⊡	Yes□	No	Date of training	2014
HGM Class used for	IGM Class used for rating Depressional & Flats Wetland has multiple HGM classes? □ Yes ☑ No						′es ☑ No	
NOTE: Fo	rm is not complete Source of base aer		_	equested (figures ca	n be co	ombined).	
OVERALL WETLA	OVERALL WETLAND CATEGORY IV (based on functions ☑ or special characteristics □)							
1. Category of w	1. Category of wetland based on FUNCTIONS							
		I - Total score					e for each	*
Category II - Total score = 20 - 22							tion based	
Category III - Total score = 16 - 19 on three								
	X Category	I V - Total sco	re = 9 - 15			rating	gs	
						(orde	er of ratings	
FUNCTION	Improving Water Quality	Hydrologic	Habitat			is not	t rtant)	
List appropriate rating (H, M, L)								
Site Potential	M	L	L			9 = H	I, H, H	
Landscape Potential	M	Н	L			8 = H	I, H, M	
Value	M	M	L	Total		7 = H	I, H, L	
Score Based on						7 = H	I. M. M	

1

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	e water levels in the entire unit usuall	controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 ppt (parts per thousand)?
		Freshwater Tidal Fringe use the forms for Riverine wetlands. Intuition to the stuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. Γ sources of water to the unit.
✓	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats Flats wetland, use the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	□ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i>). The water flows through the wetland may flow subsurface, as sheetflow, on The water leaves the wetland witho .	be very gradual), in one direction (unidirectional) and usually comes from seeps. I r in a swale without distinct banks.
V	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at least	nnel, where it gets inundated by overbank flooding
	NO - go to 6	□ YES - The wetland class is Riverine
		ons that are filled with water when the river is not flooding.
	no ravorno anti oan contain depiessi	no that are inica with water when the fiver is not houring.

Melland	name	or number	W15	

Is the entire wetland unit	in a topographic dep	ression in which \	water ponds, d	or is saturated to	ວ the surface, at
some time during the year?	This means that any	outlet, if present,	is higher thai	n the interior of	the wetland.

□ NO - go to 7 □ YES - The wetland class is Depressional

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

☑ NO - go to 8 ☑ **YES** - The wetland class is **Depressional**

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Inlet is sheetflow off I-5 on-ramp and point discharge from parking lot. W15 infiltrates or drains to catchbasin.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key)		
with no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly		
constricted permanently flowing outlet.	points = 2	2
 Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing 	points = 1	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	points – i	
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0
(use NRCS definitions).	Yes = 4 No = 0	U
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru	ub, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	5
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	_
Wetland has persistent, ungrazed plants < 1/ ₁₀ of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in		
Area seasonally ponded is > ½ total area of wetland	points = 4	0
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	
	in the boxes above	7
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		
generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are		
not listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	
	in the boxes above	2
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L	Record the rating on	the first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	` '	1
	Yes = 1 No = 0	•
D 3.3. Has the site been identified in a watershed or local plan as important for		
maintaining water quality (answer YES if there is a TMDL for the basin in which		0
the unit is found)?	Yes = 2 No = 0	_
	in the boxes above	1
Rating of Value If score is: 2-4=H 1=M 0=L	Record the rating on	tne first page

<u>DEPRESSIONAL AND FLATS WETLANDS</u>			
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra	dation		
D 4.0. Does the site have the potential to reduce flooding and erosion?			
D 4.1. Characteristics of surface water outflows from the wetland:			
Wetland is a depression or flat depression with no surface water			
leaving it (no outlet) points = 4			
Wetland has an intermittently flowing stream or ditch, OR highly	2		
constricted permanently flowing outlet points = 2 Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	2		
permanently flowing ditch points = 1			
Wetland has an unconstricted, or slightly constricted, surface outlet			
that is permanently flowing points = 0			
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the			
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the			
deepest part.			
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7			
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	0		
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3			
☐ The wetland is a "headwater" wetland points = 3			
Wetland is flat but has small depressions on the surface that trap water points = 1			
Marks of ponding less than 0.5 ft (6 in) points = 0			
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of			
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.			
☐ The area of the basin is less than 10 times the area of the unit points = 5	3		
The area of the basin is 10 to 100 times the area of the unit points = 3	ŭ		
The area of the basin is more than 100 times the area of the unit points = 0			
☐ Entire wetland is in the Flats class points = 5			
Total for D 4 Add the points in the boxes above	5		
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L Record the rating on	the first page		
D 5.0. Does the landscape have the potential to support hydrologic function of the site?			
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1		
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1		
Yes = 1 No = 0			
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land			
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1		
Yes = 1 No = 0			
Total for D 5 Add the points in the boxes above	3		
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on	the first page		
D 6.0. Are the hydrologic functions provided by the site valuable to society?			
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best			
matches conditions around the wetland unit being rated. Do not add points. Choose the highest			
score if more than one condition is met.			
The wetland captures surface water that would otherwise flow down-gradient into areas			
where flooding has damaged human or natural resources (e.g., houses or salmon redds):			
Flooding occurs in a sub-basin that is immediately down-			
gradient of unit. points = 2	1		
 Surface flooding problems are in a sub-basin farther down- 			
gradient. points = 1			
 ☐ Flooding from groundwater is an issue in the sub-basin. ☐ The existing or potential outflow from the wetland is so constrained 			
by human or natural conditions that the water stored by the wetland			
cannot reach areas that flood. Explain why points = 0			
☐ There are no problems with flooding downstream of the wetland. points = 0			
D 6.2. Has the site been identified as important for flood storage or flood			
·			
conveyance in a regional flood control plan? Yes = 2 No = 01			
conveyance in a regional flood control plan? Yes = 2 No = 0 Total for D 6 Add the points in the boxes above	1		

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

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	
points.	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☐ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least	
33 ft (10 m)	1
☐ 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 (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas	
that are permanently or seasonally inundated (structures for egg-laying by amphibians)	
☑ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see H	
1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	5
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
0 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 0%	
70 moderate a low interiorly land ages 7 2 y = 0.70	
If total accessible, hebitation	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 1	
< 10 % of 1 km Polygon points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	
Calculate:	
16 % undisturbed habitat + (11 % moderate & low intensity land uses / 2) = 21.5%	
Undisturbed habitat > 50% of Polygon points = 3	1
Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches points = 1	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	
, , , , , , , , , , , , , , , , , , , ,	
> 50% of 1 km Polygon is high intensity land use points = (-2)	
≤ 50% of 1km Polygon is high intensity points = 0	
Total for H 2 Add the points in the boxes above	
Rating of Landscape Potential If Score is: 4-6=H 1-3=M <	the first page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	
☐ It is a Wetland of High Conservation Value as determined by the	0
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 1	
Site does not meet any of the criteria above points = 0	
Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = I Record the rating on	the first nage

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

Wetland	name	or number	W15	
vveuanu	Hallie	or number	VVIO	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

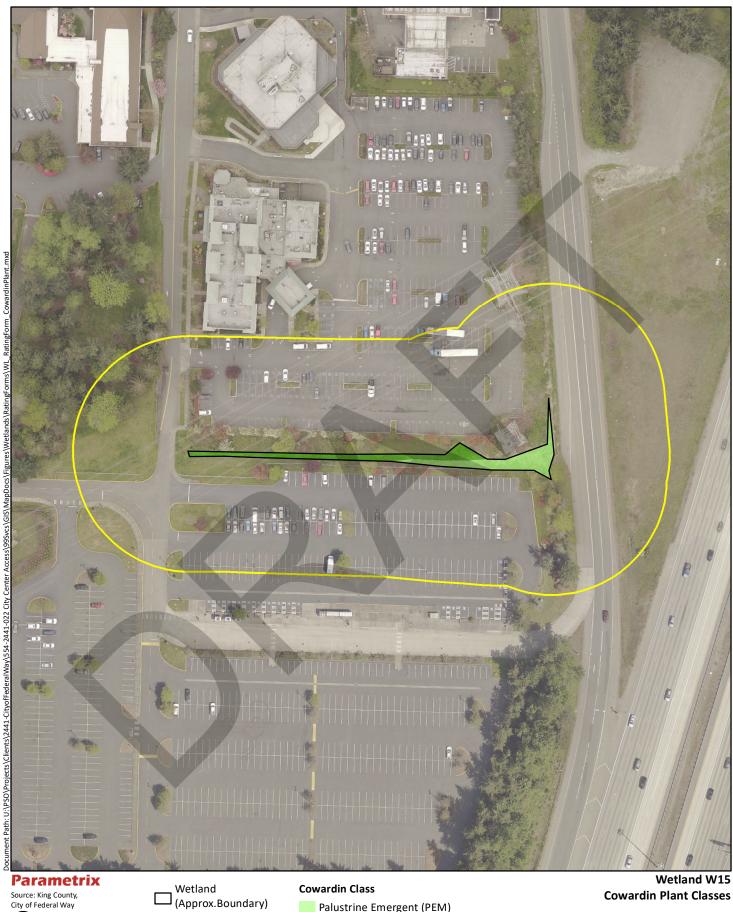
Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
Herbaceous Balds: Variable size patches of grass and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

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

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

SC 4.0.	Forested Wetlands	
	Does the wetland have at least 1 contiguous acre of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac (20	
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	.
	32 in (81 cm) or more.	.
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	.
	years old OR the species that make up the canopy have an average diameter (dbh)	.
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	ı
	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 largeen in which the wetland is located contains pended water that is saline or	
	The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
İ	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?	
JC J. 1.	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
_	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	ļ
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	ļ
	☐ Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating	,
SC 6.1.		,
	(rates H,H,H or H,H,M for the three aspects of function)?	,
20.62	☐ Yes = Category I ☐ No - Go to SC 6.2	ı
SC 6.2.		ļ
SC 6.3.	\square Yes = Category II \square No - Go to SC 6.3 Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	ı
SC 0.5.	1 ac?	ı
	☐ Yes = Category III ☐ No = Category IV	ı
Catego	ry of wetland based on Special Characteristics	
	nswered No for all types, enter "Not Applicable" on Summary Form	



100 **⊐** Feet 150-ft Buffer

Palustrine Emergent (PEM)

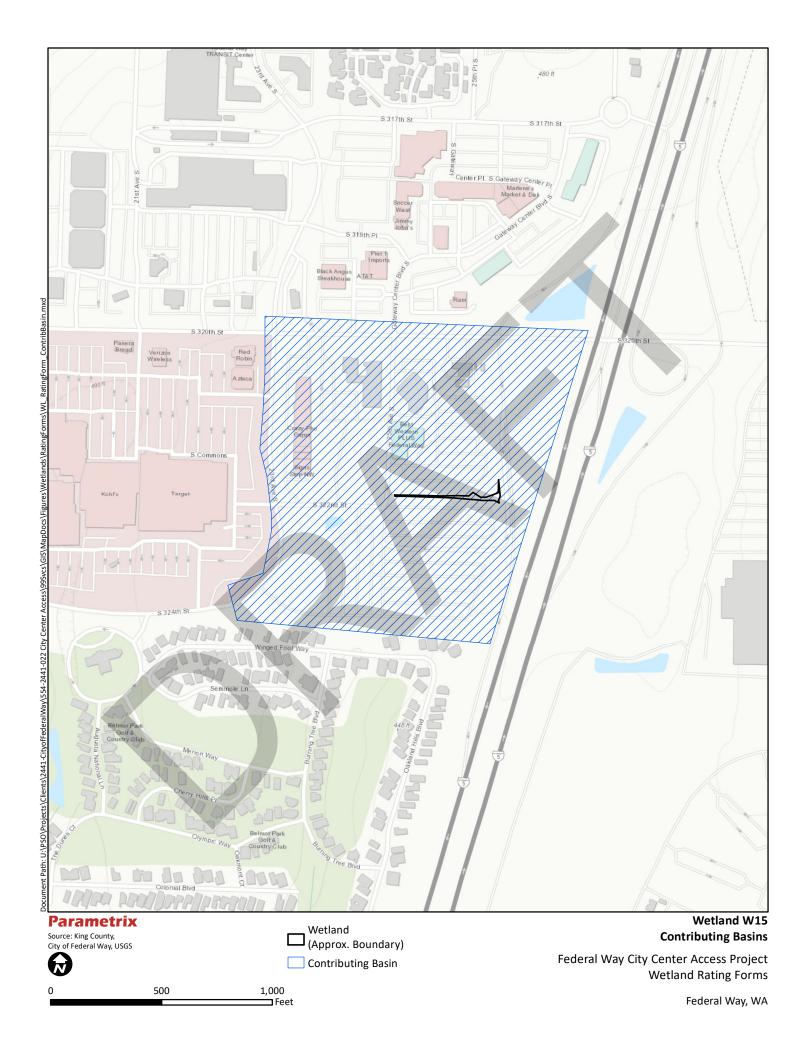
Palustrine Scrub Shrub (PSS)

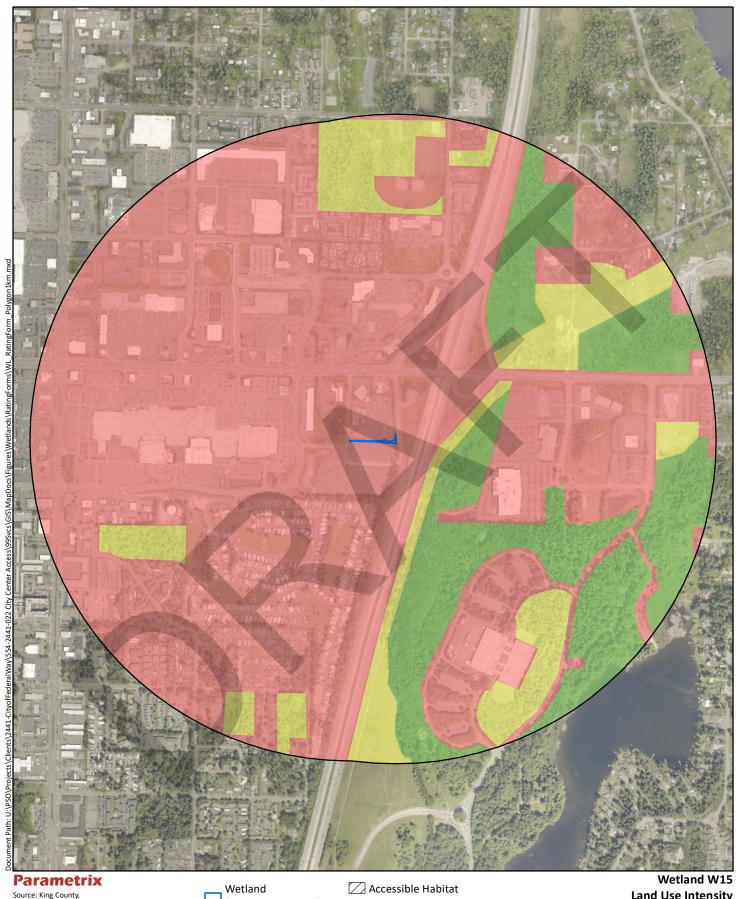
Cowardin Plant Classes

Federal Way City Center Access Project **Wetland Rating Forms**



0 50 100 Feet





Source: King County, City of Federal Way



1,000 Feet 500

Wetland (Approx. Boundary)

1-km Polygon

Land Use

High

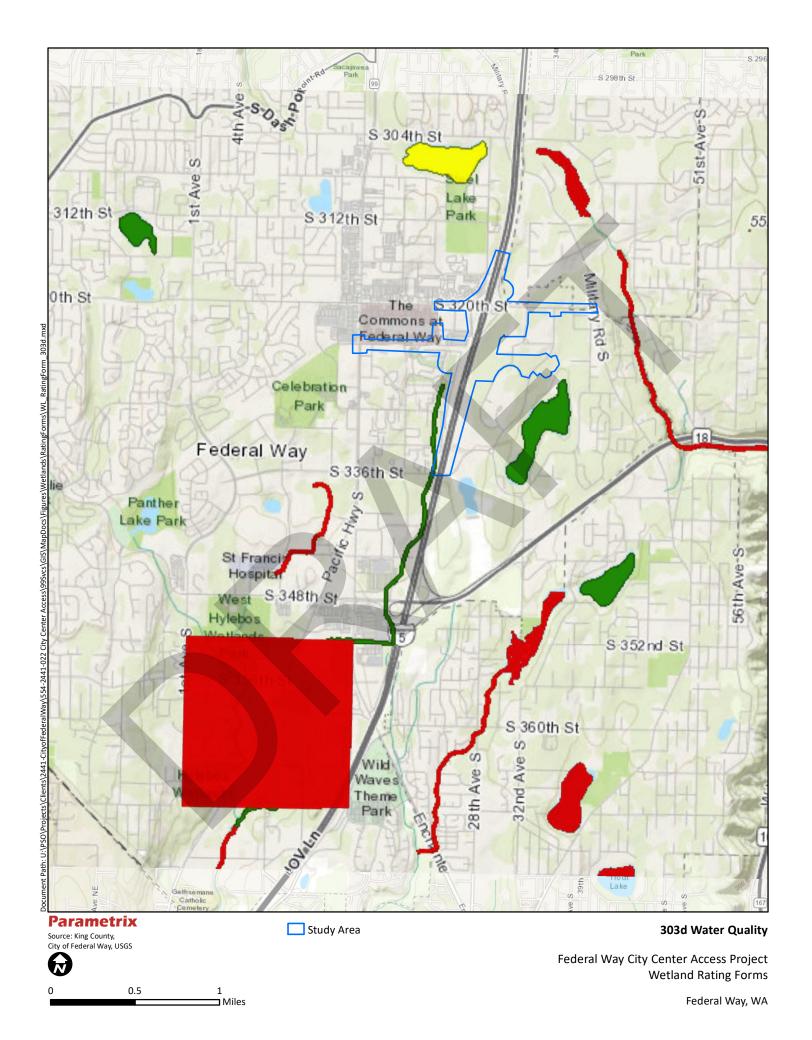
Low/moderate

Undisturbed

Land Use Intensity

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



RATING SUMMARY – Western Washington

Name of wetland (or l	D #):	W17						Date of site visit:	1/7/2	021
Rated by Wozniak				Trained by E	cology?⊡	Yes□	No	Date of training	g 20	014
HGM Class used for	rating	Depression	nal & Flats		Wetlan	ıd has mı	ultiple	HGM classes?□	Yes ☑	No
NOTE: Fo		-		ne figures re	equested (figures ca	an be d	combined).		
	Source	of base aer	ial photo/ma	p ESRI						
OVERALL WETLA	retland	based on Category I Category I	i - Total scoi II - Total sco III - Total sc	NS re = 23 - 27 ore = 20 - 22 ore = 16 - 19		☑ or spê	Sco fun on	aracteristics ore for each oction based three		
		Category 1	IV - Total sc	ore = 9 - 15				ings		
FUNCTION		roving r Quality	Hydrologi				is r	der of ratings not portant)		
			ropriate rati	ng (H, M, L)						
Site Potential		M	М	L				H, H, H		
Landscape Potential		M	Н	L			8 =	H, H, M		
Value		M	M	Н	Total		7 =	H, H, L		
Score Based on Ratings		6	7	5	18		6 = 6 = 5 =	H, M, M H, M, L M, M, M H, L, L M, M, L		
							4 =	M, L, L		

3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usually	controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 ppt (parts per thousand)?
		Freshwater Tidal Fringe use the forms for Riverine wetlands. If stuarine wetland and is not scored. This method cannot be used
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. Γ sources of water to the unit.
V	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats in Flats wetland, use the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
V	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (slope can The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland without	be very gradual), in one direction (unidirectional) and usually comes from seeps. It or in a swale without distinct banks.
☑	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding
V	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depression	ons that are filled with water when the river is not flooding

Wetland	name	or num	her	W17	
vvelianu	name	or mun	ibei	VV I /	

6.	ls t	the e	entire	wetla	and	unit	in a	topogra	phic	depr	ression	า in	which	water	ponds,	or is	saturate	ed to	the s	surface	, at
SC	ome	time	e dur	ing th	ne ye	ar?	This	s means	that	any	outlet	, if ;	oresen	t, is hi	gher tha	an the	e interioi	r of th	he we	etland.	

□ NO - go to 7 □ YES - The wetland class is Depressional

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

☑ NO - go to 8
☑ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Inlet is sheetflow off I-5 on-ramp and point discharge from parking lot. W15 infiltrates or drains to catchbasin.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to imp	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland:		
Wetland is a depression or flat depression (QUESTION 7 on key) with		
no surface water leaving it (no outlet).	points = 3	
Wetland has an intermittently flowing stream or ditch, OR highly	nainta - O	2
constricted permanently flowing outlet. □ Wetland has an unconstricted, or slightly constricted, surface outlet	points = 2	3
that is permanently flowing	points = 1	
☐ Wetland is a flat depression (QUESTION 7 on key), whose outlet is a		
permanently flowing ditch.	points = 1	
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0
(use NRCS definitions).	Yes = 4 No = 0	<u> </u>
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru	ib, and/or Forested	
Cowardin classes):		
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	3
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	
Wetland has persistent, ungrazed plants > 1/10 of area	points = 1	Ť
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0	
D 1.4. Characteristics of seasonal ponding or inundation:		
This is the area that is ponded for at least 2 months. See description in		
Area seasonally ponded is > ½ total area of wetland	points = 4	4
Area seasonally ponded is > 1/4 total area of wetland	points = 2	
Area seasonally ponded is < 1/4 total area of wetland	points = 0	40
	in the boxes above	10
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	trie iirst page
D 2.0. Does the landscape have the potential to support the water quality function	n of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that		0
generate pollutants?	Yes = 1 No = 0	U
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0
D 2.4. Are there other sources of pollutants coming into the wetland that are not		
listed in questions D 2.1 - D 2.3?		0
Source	Yes = 1 No = 0	
	in the boxes above	1
Rating of Landscape Potential If score is: ☐ 3 or 4 = H ☑ 1 or 2 = M ☐ 0 = L	Record the rating on	tne first page
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	<u> </u>
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	` '	1
	Yes = 1 No = 0	•
D 3.3. Has the site been identified in a watershed or local plan as important for		_
maintaining water quality (answer YES if there is a TMDL for the basin in which	.,	0
the unit is found)?	Yes = 2 No = 0	
Total for D 3 Add the points Rating of Value If score is: □ 2 - 4 = H ☑ 1 = M □ 0 = L	in the boxes above Record the rating on	1
	Record the rating on	me urst bade

<u>DEPRESSIONAL AND FLATS WETLANDS</u>								
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation								
D 4.0. Does the site have the potential to reduce flooding and erosion?								
D 4.1. Characteristics of surface water outflows from the wetland:								
Wetland is a depression or flat depression with no surface water								
leaving it (no outlet) points = 4								
Wetland has an intermittently flowing stream or ditch, OR highly								
constricted permanently flowing outlet points = 2	4							
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a								
permanently flowing ditch Westland has an unconstricted, or eligibility constricted, surface outlet								
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points = 0								
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the								
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the								
deepest part.								
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7								
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3							
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3								
☐ The wetland is a "headwater" wetland points = 3								
Wetland is flat but has small depressions on the surface that trap water points = 1								
Marks of ponding less than 0.5 ft (6 in)								
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of								
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.								
☐ The area of the basin is less than 10 times the area of the unit points = 5	0							
The area of the basin is 10 to 100 times the area of the unit points = 3	U							
The area of the basin is more than 100 times the area of the unit points = 0								
☐ Entire wetland is in the Flats class points = 5								
Total for D 4 Add the points in the boxes above	7							
Rating of Site Potential If score is: \Box 12 - 16 = H \Box 6 - 11 = M \Box 0 - 5 = L Record the rating on	the first page							
D 5.0. Does the landscape have the potential to support hydrologic function of the site?								
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0	1							
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1							
Yes = 1 No = 0	•							
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land								
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1							
Yes = 1 No = 0								
Total for D 5 Add the points in the boxes above	3							
Rating of Landscape Potential If score is: ☑ 3 = H ☐ 1 or 2 = M ☐ 0 = L Record the rating on	the first page							
D 6.0. Are the hydrologic functions provided by the site valuable to society?								
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best								
matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u>								
score if more than one condition is met.								
The wetland captures surface water that would otherwise flow down-gradient into areas								
where flooding has damaged human or natural resources (e.g., houses or salmon redds):								
Flooding occurs in a sub-basin that is immediately down-								
gradient of unit. points = 2 ☑ Surface flooding problems are in a sub-basin farther down-	1							
• .								
gradient. points = 1								
gradient. points = 1 □ Flooding from groundwater is an issue in the sub-basin. points = 1								
gradient. points = 1 □ Flooding from groundwater is an issue in the sub-basin. points = 1 □ The existing or potential outflow from the wetland is so constrained by								
gradient. points = 1 □ Flooding from groundwater is an issue in the sub-basin. points = 1 □ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland								
gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0								
gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0	0							
gradient. points = 1 □ Flooding from groundwater is an issue in the sub-basin. points = 1 □ The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 □ There are no problems with flooding downstream of the wetland. points = 0	0							
gradient. points = 1 Flooding from groundwater is an issue in the sub-basin. points = 1 The existing or potential outflow from the wetland is so constrained by human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points = 0 There are no problems with flooding downstream of the wetland. points = 0 D 6.2. Has the site been identified as important for flood storage or flood	0							

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

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

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of check</i>	es is the number of			
points.	s is the number of			
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 0	6 ft long)			
☑ Standing snags (dbh > 4 in) within the wetland	Jit long)			
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends at				
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least				
33 ft (10 m)				
☐ Stable steep banks of fine material that might be used by beaver or might	uskrat for denning			
(> 30 degree slope) OR signs of recent beaver activity are present (<i>cut shrubs or trees</i>				
that have not yet weathered where wood is exposed)				
☐ At least ¼ ac of thin-stemmed persistent plants or woody branches are	e present in areas			
that are permanently or seasonally inundated (structures for egg-laying	g by amphibians)			
☐ Invasive plants cover less than 25% of the wetland area in every strate	um of plants (see H			
1.1 for list of strata)				
	s in the boxes above	4		
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L	Record the rating on	the first page		
H 2.0. Does the landscape have the potential to support the habitat function of the	ne site?			
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).				
Calculate:				
12 % undisturbed habitat + (6 % moderate & low intensity land	d uses / 2) = 15%			
	,			
If total accessible habitat is:		1		
> ¹ / ₃ (33.3%) of 1 km Polygon	points = 3			
20 - 33% of 1 km Polygon	points = 2			
10 - 19% of 1 km Polygon	points = 1			
< 10 % of 1 km Polygon	points = 0			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.				
Calculate:				
25 % undisturbed habitat + (20 % moderate & low intensity land	l uses / 2) = 35%			
Undisturbed habitat > 50% of Polygon	points = 3	1		
Undisturbed habitat 10 - 50% and in 1-3 patches	points = 2			
Undisturbed habitat 10 - 50% and > 3 patches	points = 1			
Undisturbed habitat < 10% of 1 km Polygon	points = 0			
H 2.3 Land use intensity in 1 km Polygon: If	points o			
> 50% of 1 km Polygon is high intensity land use	points = (-2)	-2		
≤ 50% of 1km Polygon is high intensity	points = 0			
	s in the boxes above	0		
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < 1 = L				
H 3.0. Is the habitat provided by the site valuable to society?				
H 3.1. Does the site provide habitat for species valued in laws, regulations, or po	olicies? Choose			
only the highest score that applies to the wetland being rated.				
Site meets ANY of the following criteria:	points = 2			
☑ It has 3 or more priority habitats within 100 m (see next page	•			
☐ It provides habitat for Threatened or Endangered species (a	ny plant			
or animal on the state or federal lists)				
☐ It is mapped as a location for an individual WDFW priority sp		2		
☐ It is a Wetland of High Conservation Value as determined by	/ uie			
Department of Natural Resources ☐ It has been categorized as an important habitat site in a local	al or			
regional comprehensive plan, in a Shoreline Master Plan, or				
watershed plan	ша			
Site has 1 or 2 priority habitats (listed on next page) with in 100m	points = 1			
Site does not meet any of the criteria above	points = 0			
Rating of Value If Score is:	Record the rating on	the first nage		

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

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest - Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore. Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast

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

in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
CC 2 0 V	☐ Yes = Category I ☐ No = Category II	
SC 2.0. V	Vetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of	
30 2.1.	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00 2.2.	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E		
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
	AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	
SC 3.4.	•	
00 0.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	
	□ 100 - 10 a Category 1 bog □ 110 - 10 Hot a bog	ļ

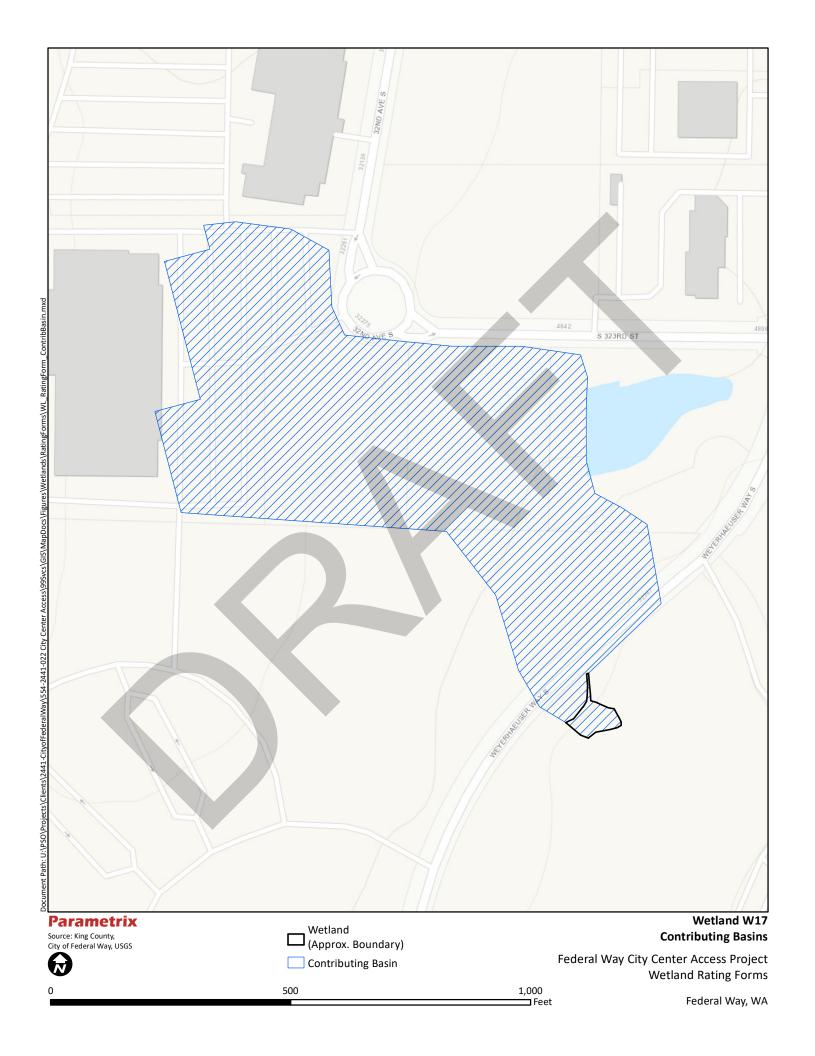
SC 4	4.0. I	Forested Wetlands	
•		Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria	
		for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer</i>	
		YES you will still need to rate the wetland based on its functions.	
		Old-growth 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/ac (20	
		trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	
		32 in (81 cm) or more.	
		Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
		years old OR the species that make up the canopy have an average diameter (dbh)	
		exceeding 21 in (53 cm).	
		☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC	5.0. \	Wetlands in Coastal Lagoons	
		Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
		The wetland lies in a depression adjacent to marine waters that is wholly or partially	
		separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
ı		rocks	
ı		The lagoon in which the wetland is located contains ponded water that is saline or	
i.		brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (needs to	
ı		be measured near the bottom)	
ı		☐ Yes - Go to SC 5.1 ☐ No = Not a wetland in a coastal lagoon	
SC	5.1. I	Does the wetland meet all of the following three conditions?	
		The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
		and has less than 20% cover of aggressive, opportunistic plant species (see list of	
		species on p. 100).	
ı		At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	_	grazed or un-mowed grassland.	
		The wetland is larger than $^{1}/_{10}$ ac (4350 ft ²)	
		☐ Yes = Category I ☐ No = Category II	
SC (6.0. I	Interdunal Wetlands	
		Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
		Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
		based on its habitat functions.	
	_	In practical terms that means the following geographic areas:	
ı		Long Beach Peninsula: Lands west of SR 103	
		Grayland-Westport: Lands west of SR 105	
	Ш	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
20.0	~ 4	☐ Yes - Go to SC 6.1 ☐ No = Not an interdunal wetland for rating	
SC 6	ö.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
ı		(rates H,H,H or H,H,M for the three aspects of function)?	
00		☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6	o.z.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	
90 6	2 Q	$□ Yes = \textbf{Category II} \qquad □ No - Go to \textbf{SC 6.3}$ Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1	
SC 6	ე.ა.	ac?	
		□ Yes = Category III □ No = Category IV	
Cate	aor	y of wetland based on Special Characteristics	
	_	swered No for all types, enter "Not Applicable" on Summary Form	

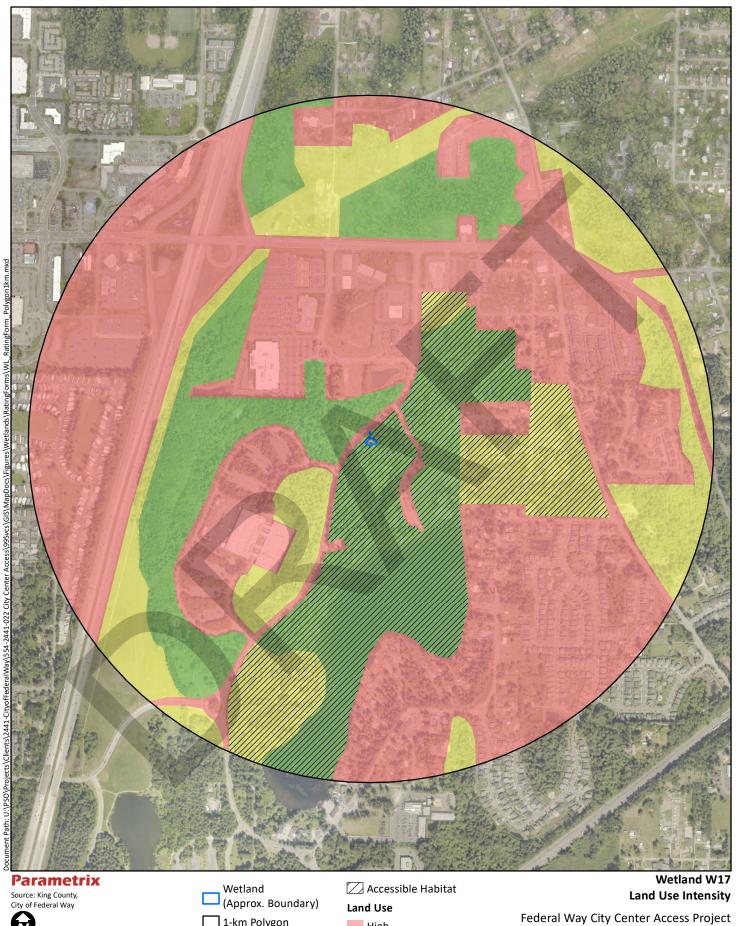


⊐ Feet

Federal Way, WA







1,000 Feet 500

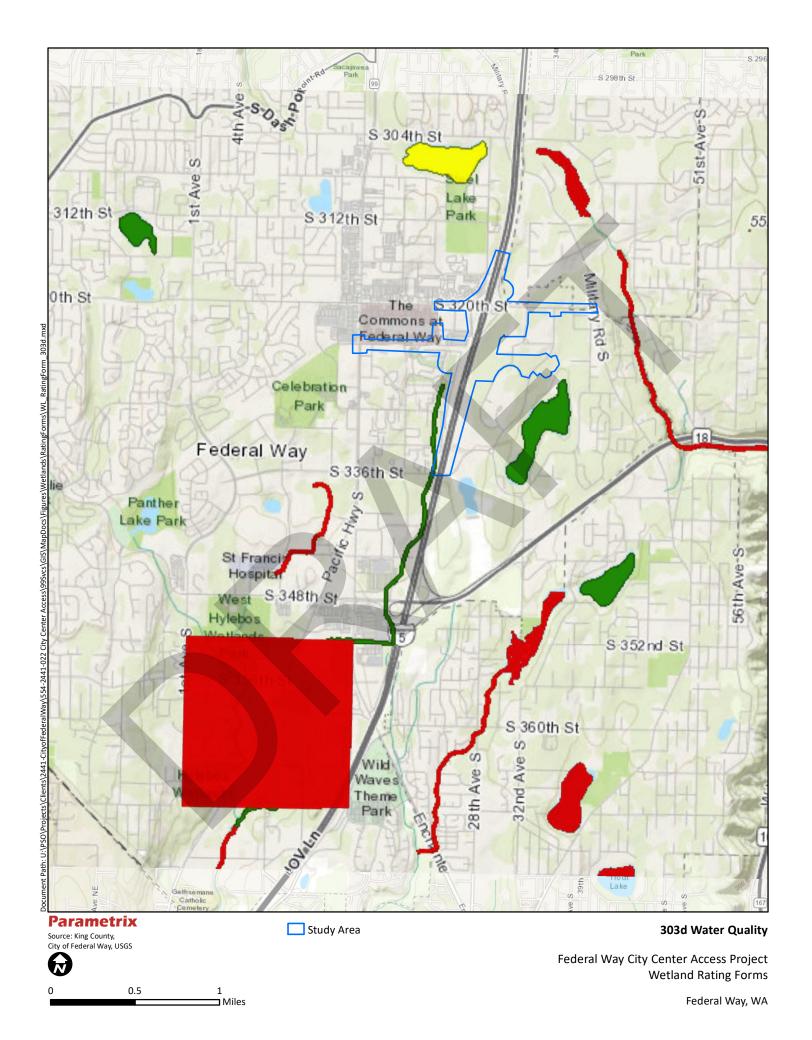
1-km Polygon

High Low/moderate

Undisturbed

Wetland Rating Forms

Federal Way, WA



RATING SUMMARY – Western Washington

Name of wetland (or I	D#): <u>W18</u>					[Date of site visit:	1/7/2021
Rated by Wozniak		TI	rained by E	cology?⊡	Yes□	No	Date of training	2014
HGM Class used for	rating Depressio	nal & Flats		Wetland	d has mu	ıltiple H	GM classes? □ Ye	es ☑ No
NOTE: Fo	rm is not complete Source of base aer		_	equested (i	figures ca	an be co	ombined).	
	OVERALL WETLAND CATEGORY II (based on functions ☑ or special characteristics □)							
1. Category of w	etland based on	I - Total score				800	re for each	
		II - Total score					ction based	
		III - Total score					hree	
		IV - Total scor				ratir		
	Category	IV - Total Scol	6-9-13				er of ratings	
	Improving	Hydrologic	Habitat			is no	•	
FUNCTION	Water Quality	,					ortant)	
	List app	propriate rating	g (H, M, L)					
Site Potential	M	M	Н			9 =	Н, Н, Н	
andscape Potential	М	Н	L			8 = 1	H, H, M	
/alue	M	M	Н	Total		7 =	H, H, L	
Score Based on Ratings	6	7	7	20			H, M, M H, M, L	
						6 = 1	M, M, M	

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

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

Are the water levels in the entire unit usually controlled by tides except during floods?					
✓	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1			
1.1	Is the salinity of the water during peri	ods of annual low flow below 0.5 ppt (parts per thousand)?			
		Freshwater Tidal Fringe use the forms for Riverine wetlands. If tuarine wetland and is not scored. This method cannot be used			
	ntire wetland unit is flat and precipitation vater and surface water runoff are NOT	on is the only source (>90%) of water to it. sources of water to the unit.			
✓	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats Flats wetland, use the form for Depressional wetlands.			
	the entire wetland unit meet all of the the the vegetated part of the wetland is oplants on the surface at any time of the At least 30% of the open water area.	on the shores of a body of permanent open water (without any ne year) at least 20 ac (8 ha) in size;			
✓	NO - go to 4	□ YES - The wetland class is Lake Fringe (Lacustrine Fringe)			
	the entire wetland unit meet all of the the the wetland is on a slope (<i>slope can</i>). The water flows through the wetland may flow subsurface, as sheetflow, on the water leaves the wetland withou .	be very gradual), in one direction (unidirectional) and usually comes from seeps. It r in a swale without distinct banks.			
V	NO - go to 5	☐ YES - The wetland class is Slope			
		pe of wetlands except occasionally in very small and shallow are usually <3 ft diameter and less than 1 ft deep).			
	the entire wetland unit meet all of the the the unit is in a valley, or stream charthrom that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding			
4	NO - go to 6	☐ YES - The wetland class is Riverine			
NOTE: T	he Riverine unit can contain depression	ons that are filled with water when the river is not flooding			

Wetland	name or number	W18
vvenano	name or number	VVIO

Is the entire wetland unit	in a topographic dep	ression in which \	water ponds, o	or is saturated t	o the surface, at
some time during the year?	This means that any	outlet, if present,	, is higher tha	n the interior of	the wetland.

□ NO - go to 7 □ YES - The wetland class is Depressional

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

☑ NO - go to 8

☑ YES - The wetland class is Depressional

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Inlet is sheetflow off I-5 on-ramp and point discharge from parking lot. W15 infiltrates or drains to catchbasin.

DEPRESSIONAL AND FLATS WETLA	NDS	
Water Quality Functions - Indicators that the site functions to im	prove water quality	
D 1.0. Does the site have the potential to improve water quality?		
D 1.1. Characteristics of surface water outflows from the wetland: Wetland is a depression or flat depression (QUESTION 7 on key) with no surface water leaving it (no outlet). Wetland has an intermittently flowing stream or ditch, OR highly	points = 3	0
 constricted permanently flowing outlet. Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch. 	points = 2 points = 1 points = 1	2
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic (use NRCS definitions).	Yes = 4 No = 0	0
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-shru Cowardin classes): Wetland has persistent, ungrazed, plants > 95% of area Wetland has persistent, ungrazed, plants > ½ of area Wetland has persistent, ungrazed plants > 1/10 of area Wetland has persistent, ungrazed plants < 1/10 of area	points = 5 points = 3 points = 1 points = 0	5
D 1.4. Characteristics of seasonal ponding or inundation: This is the area that is ponded for at least 2 months. See description in Area seasonally ponded is > ½ total area of wetland Area seasonally ponded is > ¼ total area of wetland Area seasonally ponded is < ¼ total area of wetland	n manual. points = 4 points = 2 points = 0	2
Total for D 1 Add the points	s in the boxes above	9
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page
D 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
D 2.3. Are there septic systems within 250 ft of the wetland? D 2.4. Are there other sources of pollutants coming into the wetland that are not listed in questions D 2.1 - D 2.3?	Yes = 1 No = 0	0
Source	Yes = 1 No = 0	2
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = L		
D 3.0. Is the water quality improvement provided by the site valuable to society?		
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	e 303(d) list? Yes = 1 No = 0	1
D 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality (answer YES if there is a TMDL for the basin in which the unit is found)?	Yes = 2 No = 0	0
· · · · · · · · · · · · · · · · · · ·	s in the boxes above	1
Rating of Value If score is: 2 - 4 = H 1 = M 0 = L	Record the rating on	the first nage

DEPRESSIONAL AND FLATS WETLANDS	
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degra-	dation
D 4.0. Does the site have the potential to reduce flooding and erosion?	
D 4.1. Characteristics of surface water outflows from the wetland:	
Wetland is a depression or flat depression with no surface water	
leaving it (no outlet) points = 4	
Wetland has an intermittently flowing stream or ditch, OR highly	
constricted permanently flowing outlet points = 2	2
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	
permanently flowing ditch points = 1	
Wetland has an unconstricted, or slightly constricted, surface outlet	
that is permanently flowing points = 0	
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the	
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the deepest part.	
Marks of ponding are 3 ft or more above the surface or bottom of outlet points = 7 Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points = 5	3
☐ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points = 3	3
☐ The wetland is a "headwater" wetland points = 3	
Wetland is a rieadwater wetland Wetland is flat but has small depressions on the surface that trap water points = 3	
Marks of ponding less than 0.5 ft (6 in)	
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of	
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.	
☐ The area of the basin is less than 10 times the area of the unit points = 5	
The area of the basin is 10 to 100 times the area of the unit points = 3	5
The area of the basin is more than 100 times the area of the unit points = 0	
☐ Entire wetland is in the Flats class points = 5	
Total for D 4 Add the points in the boxes above	10
Rating of Site Potential If score is:	
	the met page
D 5.0. Does the landscape have the potential to support hydrologic function of the site?	1
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No = 0 D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?	1
Yes = 1 No = 0	1
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human land	
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1
Yes = 1 No = 0	•
Total for D 5 Add the points in the boxes above	3
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating on	the first nage
D 6.0. Are the hydrologic functions provided by the site valuable to society?	ino moi pago
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best	
matches conditions around the wetland unit being rated. Do not add points. <u>Choose the highest</u> score if more than one condition is met.	
The wetland captures surface water that would otherwise flow down-gradient into areas	
where flooding has damaged human or natural resources (e.g., houses or salmon redds):	
Flooding occurs in a sub-basin that is immediately down-	
gradient of unit.	
Surface flooding problems are in a sub-basin farther down-	1
gradient. points = 1	
☐ Flooding from groundwater is an issue in the sub-basin.	
☐ The existing or potential outflow from the wetland is so constrained by	
human or natural conditions that the water stored by the wetland	
cannot reach areas that flood. Explain why points = 0	
☐ There are no problems with flooding downstream of the wetland. points = 0	
D 6.2. Has the site been identified as important for flood storage or flood	
	1

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

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

Wetland	name	or	number	W18	
vveuana	name	OI.	number	VV 10	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest - Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore. Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

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

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
CC 2 0 V	☐ Yes = Category I ☐ No = Category II	
SC 2.0. V	Vetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of	
30 2.1.	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00 2.2.	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E		
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
	AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	
SC 3.4.	•	
00 0.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	
	□ 100 - 10 a Category 1 bog □ 110 - 10 Hot a bog	ļ

- □ Ocean Shores-Copalis: Lands west of SR 115 and SR 109
 - ☐ Yes Go to **SC 6.1** ☑ No = **Not an interdunal wetland for rating**Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form

SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)?

□ Yes = Category I □ No - Go to SC 6.2

SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?

☐ Yes = Category II ☐ No - Go to SC 6.3

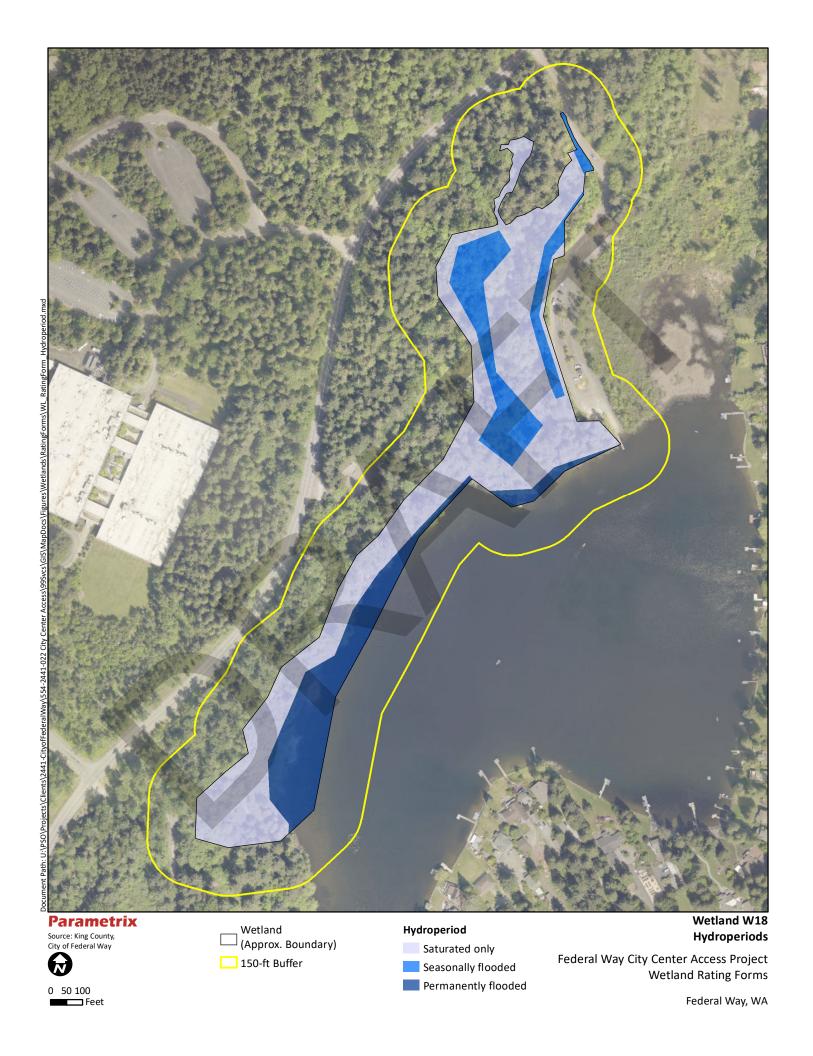
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac?

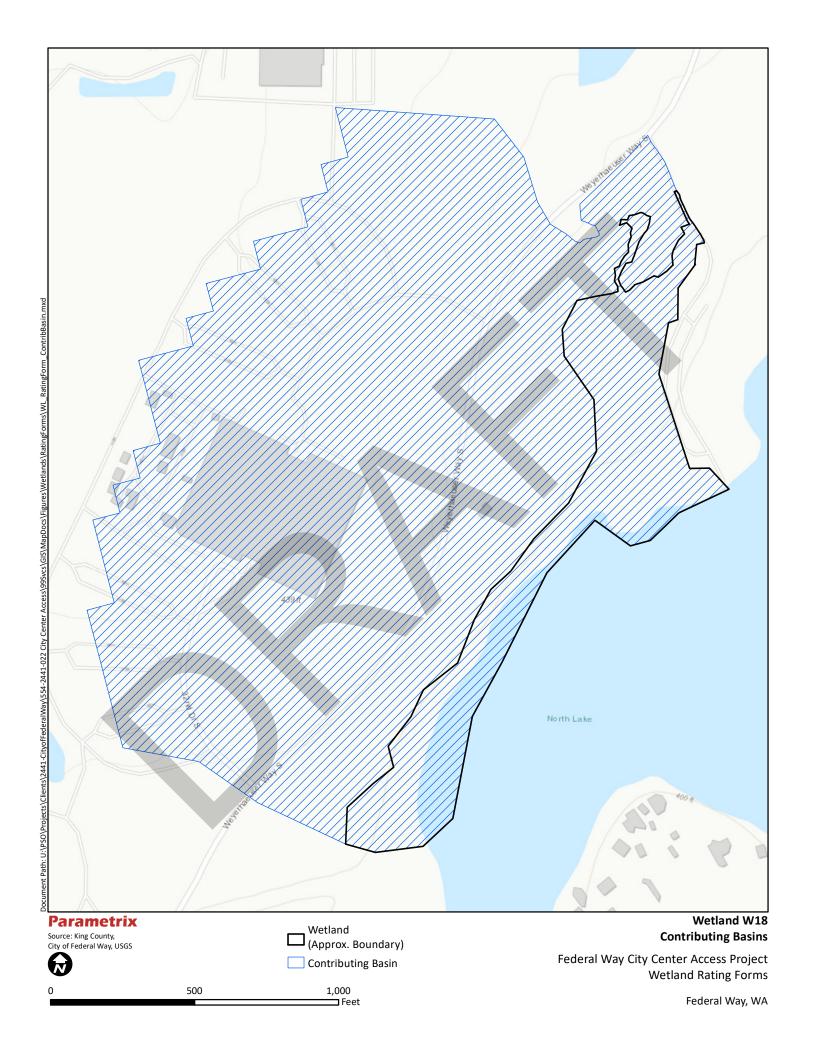
☐ Yes = Category III ☐ No = Category IV

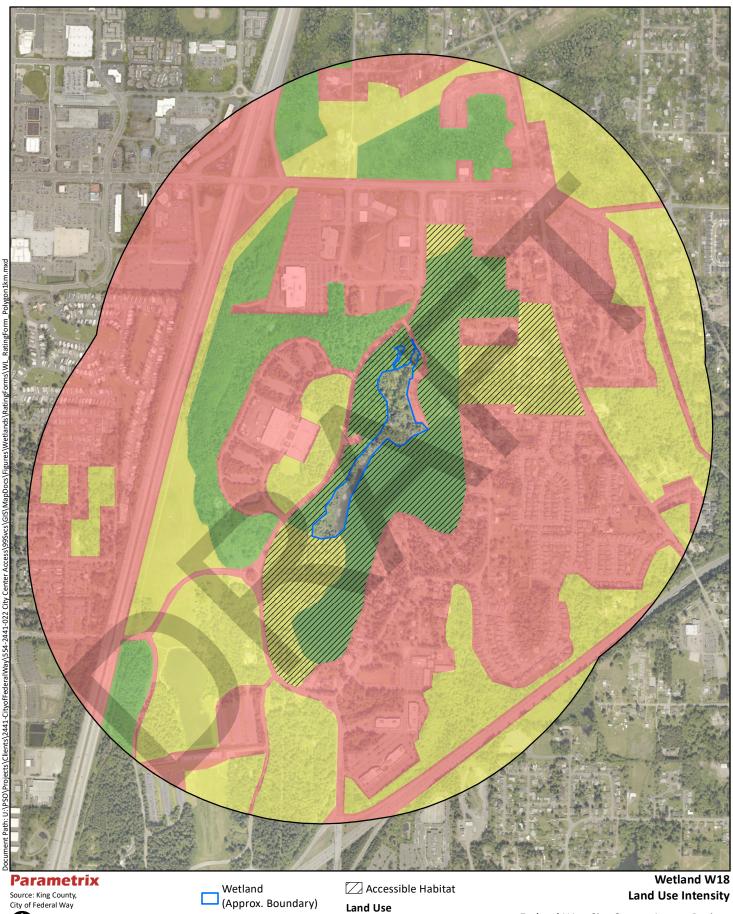
Category of wetland based on Special Characteristics

If you answered No for all types, enter "Not Applicable" on Summary Form









1,000 Feet 500

1-km Polygon

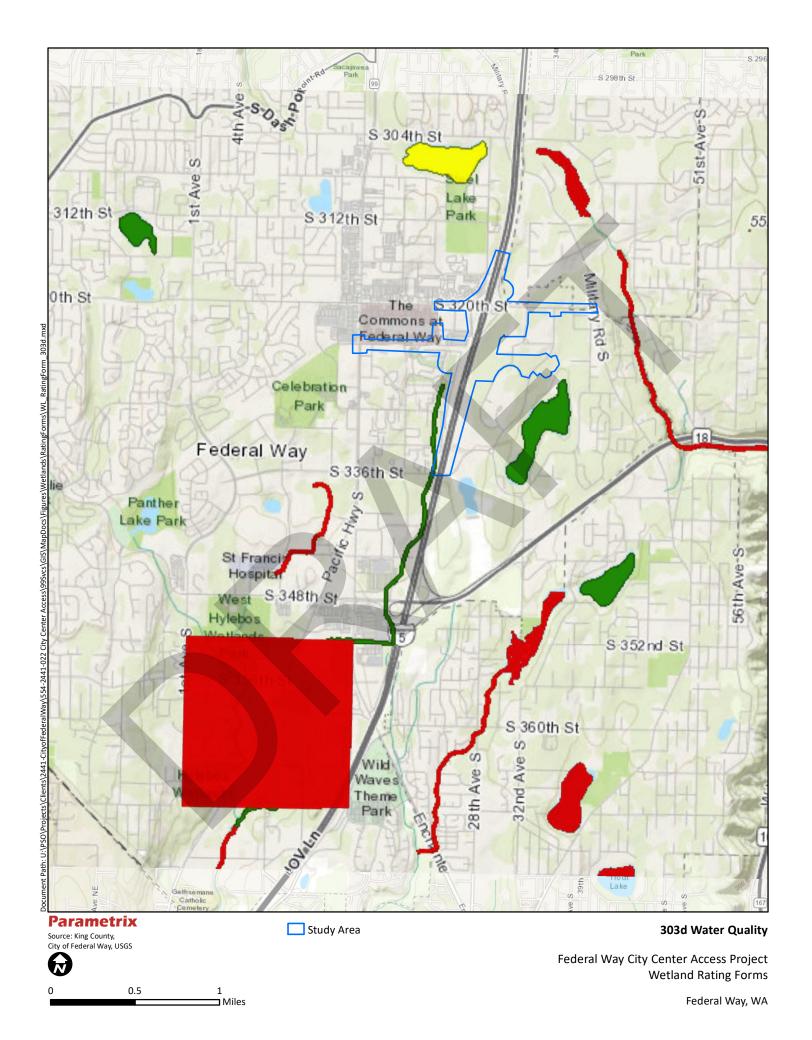
High

Low/moderate

Undisturbed

Federal Way City Center Access Project Wetland Rating Forms

Federal Way, WA



Score Based on

Ratings

RATING SUMMARY – Western Washington

Name of wetland (or I	ID#): W19					1	Date of site visit:	1/7/2021
Rated by Wozniak		Т	rained by E	cology?⊡	Yes□	No	Date of traini <u>ng</u>	2014
HGM Class used for	rating Depression	nal & Flats		Wetlan	d has mu	ıltiple H	GM classes? □ Y	es
	rm is not complete Source of base aer		_	quested (figures ca	an be c	ombined).	
OVERALL WETLA	ND CATEGORY	II	_(based on	functions I	☑ or spe	cial cha	racteristics □)	
1. Category of w	vetland based on							
		I - Total score					re for each	
		II - Total scor					ction based	
		III - Total sco					hree	
	Category	IV - Total sco	re = 9 - 15			ratii	•	
		1					er of ratings	
FUNCTION	Improving	Hydrologic	Habitat			is no	ot	
	Water Quality					imp	ortant)	
	List app	propriate ratin	g (H, M, L)					
Site Potential	M	М	Н			9 =	H, H, H	
Landscape Potential	M	Н	L			8 =	H, H, M	
Value	М	M	н	Total		7 =	нні	

20

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usually	y controlled by tides except during floods?
✓	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 ppt (parts per thousand)?
		Freshwater Tidal Fringe use the forms for Riverine wetlands. If stuarine wetland and is not scored. This method cannot be used
	ntire wetland unit is flat and precipitation vater and surface water runoff are NO	on is the only source (>90%) of water to it. Γ sources of water to the unit.
✓	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats in Flats wetland, use the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a body of permanent open water (without any he year) at least 20 ac (8 ha) in size;
✓	NO - go to 4	☐ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i> The water flows through the wetland may flow subsurface, as sheetflow, or The water leaves the wetland without	be very gradual), in one direction (unidirectional) and usually comes from seeps. It or in a swale without distinct banks.
✓	NO - go to 5	☐ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding
	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depression	ons that are filled with water when the river is not flooding.

Wetland	name	or i	number	W19	
vvenano	name	OI I	number	VV 19	

Is the entire wetland ur	nit in a topographic	depression in	which water p	oonds, or is	saturated to the	e surface, at
some time during the yea	ar? This means that	t any outlet, if	present, is hig	her 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

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

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

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

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

NOTES and FIELD OBSERVATIONS:

Inlet is sheetflow off I-5 on-ramp and point discharge from parking lot. W15 infiltrates or drains to catchbasin.

DEPRESSIONAL AND FLATS WETLANDS					
Water Quality Functions - Indicators that the site functions to improve water quality					
D 1.0. Does the site have the potential to improve water quality?					
D 1.1. Characteristics of surface water outflows from the wetland:					
Wetland is a depression or flat depression (QUESTION 7 on key) with	th				
no surface water leaving it (no outlet).	points = 3				
Wetland has an intermittently flowing stream or ditch, OR highly					
constricted permanently flowing outlet.	points = 2	1			
☑ Wetland has an unconstricted, or slightly constricted, surface outlet					
that is permanently flowing	points = 1				
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a permanently flowing ditch.	points = 1				
D 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		4			
(use NRCS definitions).	Yes = 4 No = 0	4			
D 1.3. Characteristics and distribution of persistent plants (Emergent, Scrub-sh	rub, and/or Forested				
Cowardin classes):					
Wetland has persistent, ungrazed, plants > 95% of area	points = 5	E			
Wetland has persistent, ungrazed, plants > ½ of area	points = 3	5			
Wetland has persistent, ungrazed plants > ¹ / ₁₀ of area	points = 1				
Wetland has persistent, ungrazed plants < 1/10 of area	points = 0				
D 1.4. Characteristics of seasonal ponding or inundation:					
This is the area that is ponded for at least 2 months. See description	in manual.				
Area seasonally ponded is > ½ total area of wetland	points = 4	0			
Area seasonally ponded is > 1/4 total area of wetland	points = 2				
Area seasonally ponded is < 1/4 total area of wetland	points = 0				
Total for D 1 Add the poir	nts in the boxes above	10			
Rating of Site Potential If score is: 12 - 16 = H 6 - 11 = M 0 - 5 = L	Record the rating on	the first page			
D 2.0. Does the landscape have the potential to support the water quality funct	ion of the site?				
D 2.1. Does the wetland unit receive stormwater discharges?	Yes = 1 No = 0	1			
D 2.2. Is > 10% of the area within 150 ft of the wetland in land uses that	100 1 110 0	•			
generate pollutants?	Yes = 1 No = 0	1			
D 2.3. Are there septic systems within 250 ft of the wetland?	Yes = 1 No = 0	0			
D 2.4. Are there other sources of pollutants coming into the wetland that are no					
listed in questions D 2.1 - D 2.3?		0			
Source	Yes = 1 No = 0	· ·			
	its in the boxes above	2			
Rating of Landscape Potential If score is: 3 or 4 = H 1 or 2 = M 0 = I		the first page			
D 3.0. Is the water quality improvement provided by the site valuable to society	?				
D 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river,		0			
lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0			
D 3.2. Is the wetland in a basin or sub-basin where an aquatic resource is on the	ne 303(d) list?	4			
	Yes = 1 No = 0	1			
D 3.3. Has the site been identified in a watershed or local plan as important for					
maintaining water quality (answer YES if there is a TMDL for the basin in which	ר	0			
the unit is found)?	Yes = 2 No = 0				
	nts in the boxes above	1			
Rating of Value If score is: \square 2 - 4 = H \square 1 = M \square 0 = I	Record the rating on	the first nego			

DEPRESSIONAL AND FLATS WETLANDS					
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream degradation					
D 4.0. Does the site have the potential to reduce flooding and erosion?					
D 4.1. Characteristics of surface water outflows from the wetland:					
Wetland is a depression or flat depression with no surface water					
leaving it (no outlet) points =	: 4				
Wetland has an intermittently flowing stream or ditch, OR highly	_				
constricted permanently flowing outlet points =	: 2 0				
Wetland is a flat depression (QUESTION 7 on key), whose outlet is a	4				
permanently flowing ditch points =	; 1 ;				
Wetland has an unconstricted, or slightly constricted, surface outlet that is permanently flowing points =	: 0				
D 4.2. Depth of storage during wet periods: Estimate the height of ponding above the bottom of the					
outlet. For wetlands with no outlet, measure from the surface of permanent water or if dry, the					
deepest part.					
Marks of ponding are 3 ft or more above the surface or bottom of outlet points =					
Marks of ponding between 2 ft to < 3 ft from surface or bottom of outlet points =					
☑ Marks are at least 0.5 ft to < 2 ft from surface or bottom of outlet points =					
☐ The wetland is a "headwater" wetland points =					
Wetland is flat but has small depressions on the surface that trap water points =					
Marks of ponding less than 0.5 ft (6 in) points =	: 0				
D 4.3. Contribution of the wetland to storage in the watershed: Estimate the ratio of the area of					
upstream basin contributing surface water to the wetland to the area of the wetland unit itself.					
☐ The area of the basin is less than 10 times the area of the unit points = The area of the basin is 10 to 100 times the area of the unit points =	1 1				
The area of the basin is more than 100 times the area of the unit points =					
☐ Entire wetland is in the Flats class points =					
Total for D 4 Add the points in the boxes abo					
Rating of Site Potential If score is:	•				
D 5.0. Does the landscape have the potential to support hydrologic function of the site?					
D 5.1. Does the wetland unit receive stormwater discharges? Yes = 1 No =	: 0 1				
D 5.2. Is > 10% of the area within 150 ft of the wetland in land uses that generate excess runoff?					
Yes = 1 No =	: 0 1				
D 5.3. Is more than 25% of the contributing basin of the wetland covered with intensive human lan	d				
uses (residential at >1 residence/ac, urban, commercial, agriculture, etc.)?	1				
Yes = 1 No =	: 0				
Total for D 5 Add the points in the boxes abo	ve 3				
Rating of Landscape Potential If score is: 3 = H 1 or 2 = M 0 = L Record the rating	on the first page				
D 6.0. Are the hydrologic functions provided by the site valuable to society?					
D 6.1. The unit is in a landscape that has flooding problems. Choose the description that best					
matches conditions around the wetland unit being rated. Do not add points. Choose the highest					
score if more than one condition is met.					
The wetland captures surface water that would otherwise flow down-gradient into areas					
where flooding has damaged human or natural resources (e.g., houses or salmon redds):					
Flooding occurs in a sub-basin that is immediately down-					
gradient of unit. points =	^{: 2} 1				
 Surface flooding problems are in a sub-basin farther down- 					
gradient. points =					
☐ Flooding from groundwater is an issue in the sub-basin. points =	: 1				
☐ The existing or potential outflow from the wetland is so constrained by					
human or natural conditions that the water stored by the wetland cannot reach areas that flood. Explain why points =	: 0				
☐ There are no problems with flooding downstream of the wetland.					
D 6.2. Has the site been identified as important for flood storage or flood					
conveyance in a regional flood control plan? Yes = 2 No =	: 0				
Total for D 6 Add the points in the boxes abo					
Rating of Value If score is:					

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

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. <i>The number of check</i>	ks is the number of	
points.	is in the number of	
·	6 ft long)	
 ☑ Large, downed, woody debris within the wetland (> 4 in diameter and ☑ Standing snags (dbh > 4 in) within the wetland 	o it long)	
,	an planta autanda at	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging	.	
least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the we	tiand, for at least	4
33 ft (10 m)		4
☐ Stable steep banks of fine material that might be used by beaver or m		
(> 30 degree slope) OR signs of recent beaver activity are present (cu	it snrubs or trees	
that have not yet weathered where wood is exposed)		
☑ At least ¼ ac of thin-stemmed persistent plants or woody branches ar		
that are permanently or seasonally inundated (structures for egg-layin		
☑ Invasive plants cover less than 25% of the wetland area in every strat	um of plants (see H	
1.1 for list of strata)		
	s in the boxes above	16
Rating of Site Potential If Score is: 15 - 18 = H 7 - 14 = M 0 - 6 = L	Record the rating on	the first page
H 2.0. Does the landscape have the potential to support the habitat function of t	he site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).		
Calculate:		
8 % undisturbed habitat + (5 % moderate & low intensity lan	d uses / 2) = 10.5%	
\		
If total accessible habitat is:		1
> ¹ / ₃ (33.3%) of 1 km Polygon	points = 3	
20 - 33% of 1 km Polygon	points = 2	
10 - 19% of 1 km Polygon	points = 1	
< 10 % of 1 km Polygon	points = 0	
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	points – 0	
Calculate:		
17 % undisturbed habitat + (29 % moderate & low intensity lan	d uses / 2) = 31.5%	
		1
Undisturbed habitat > 50% of Polygon	points = 3	•
Undisturbed habitat 10 - 50% and in 1-3 patches	points = 2	
Undisturbed habitat 10 - 50% and > 3 patches	points = 1	
Undisturbed habitat < 10% of 1 km Polygon	points = 0	
H 2.3 Land use intensity in 1 km Polygon: If		
> 50% of 1 km Polygon is high intensity land use	points = (-2)	-2
≤ 50% of 1km Polygon is high intensity	points = 0	
Total for H 2 Add the point	s in the boxes above	0
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < 1 = L		the first page
H 3.0. Is the habitat provided by the site valuable to society?		
H 3.1. Does the site provide habitat for species valued in laws, regulations, or p	olicies? Choose	
only the highest score that applies to the wetland being rated.		
Site meets ANY of the following criteria:	points = 2	
☑ It has 3 or more priority habitats within 100 m (see next pag	*	
☐ It provides habitat for Threatened or Endangered species (a	iny plant	
or animal on the state or federal lists)		
☐ It is mapped as a location for an individual WDFW priority s	-	2
☐ It is a Wetland of High Conservation Value as determined b	y the	2
Department of Natural Resources		
☐ It has been categorized as an important habitat site in a local	al or	
regional comprehensive plan, in a Shoreline Master Plan, o	r in a	
watershed plan		
Site has 1 or 2 priority habitats (listed on next page) with in 100m	points = 1	
Site does not meet any of the criteria above	points = 0	
Rating of Value If Score is: 2 = H 1 = M 1 = N	Record the rating on	the first nage

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

Wetland	name	or n	ımher	W19	
vveuana	name	OI III	umber	VV 19	

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: NOTE: This question is independent of the land use between the wetland unit and the priority habitat. **Aspen Stands**: Pure or mixed stands of aspen greater than 1 ac (0.4 ha). Biodiversity Areas and Corridors: Areas of habitat that are relatively important to various species of native fish and wildlife (full descriptions in WDFW PHS report). Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock. Old-growth/Mature forests: Old-growth west of Cascade crest - Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests - Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest. Oregon White Oak: Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (full descriptions in WDFW PHS report p. 158 - see web link above). Riparian: The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other. □ Westside Prairies: Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (full descriptions in WDFW PHS report p. 161 - see web link above). Instream: The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources. Nearshore: Relatively undisturbed nearshore habitats. These include Coastal Nearshore. Open Coast Nearshore, and Puget Sound Nearshore. (full descriptions of habitats and the definition of relatively undisturbed are in WDFW report - see web link on previous page). ☐ Caves: A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human. **Cliffs**: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation. Talus: Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs. Snags and Logs: Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast

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

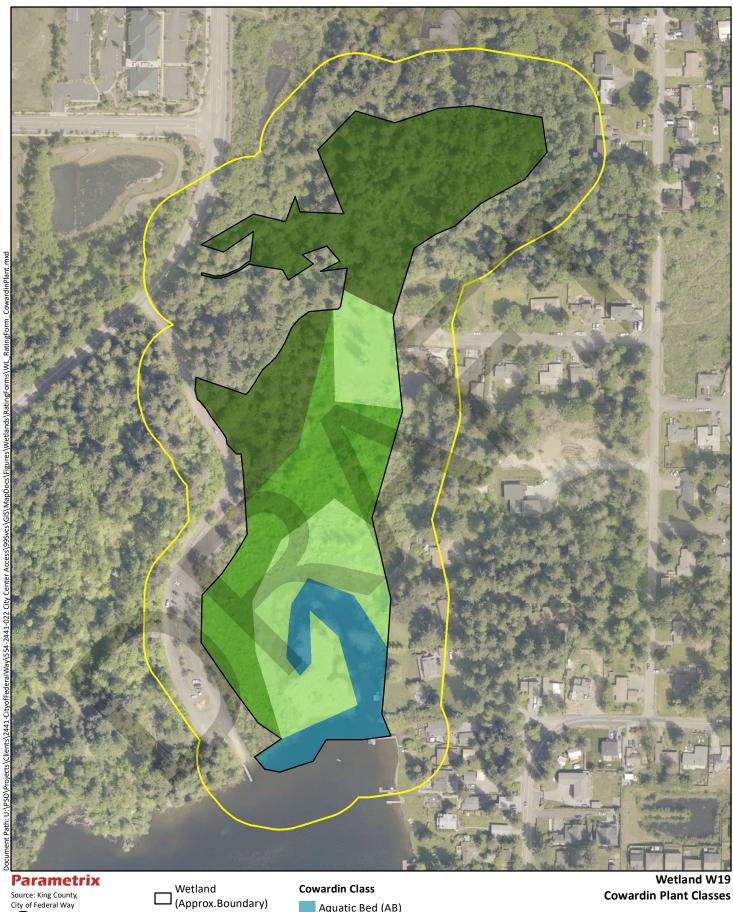
in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
Check off	any criteria that apply to the wetland. List the category when the appropriate criteria are met.	
	Estuarine Wetlands	
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
	☐ Yes - Go to SC 1.1 ☐ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve,	
	Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve	
	designated under WAC 332-30-151?	
	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
CC 2 0 V	☐ Yes = Category I ☐ No = Category II	
SC 2.0. V	Vetlands of High Conservation Value (WHCV) Has the WA Department of Natural Resources updated their website to include the list of	
30 2.1.	Wetlands of High Conservation Value?	
	☐ Yes - Go to SC 2.2 ☐ No - Go to SC 2.3	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
00 2.2.	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
2.0.	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0. E		
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in	
	bogs? Use the key below. If you answer YES you will still need to rate the wetland	
	based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☐ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground level,	
	AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog.	
SC 3.4.	•	
00 0.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce,	
	or western white pine, AND any of the species (or combination of species) listed in Table	
	4 provide more than 30% of the cover under the canopy?	
	☐ Yes = Is a Category I bog ☐ No = Is not a bog	
	□ 100 - 10 a Category 1 bog □ 110 - 10 Hot a bog	ļ

SC 4.0.	Forested Wetlands	
	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these criteria	
	for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you answer</i>	
	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/ac (20	.
	trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of	.
	32 in (81 cm) or more.	.
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.u.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	ı
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	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 aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland is larger than $^1/_{10}$ ac (4350 ft 2)	
	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland	
	Ownership or WBUO)? If you answer yes you will still need to rate the wetland	
	based on its habitat functions.	
_	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Per - Go to SC 6.1 No = Not an interdunal wetland for rating	,
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	ĺ
SC 0.1.	(rates H,H,H or H,H,M for the three aspects of function)?	ļ
	$\Box \text{ Yes} = \textbf{Category I} \qquad \Box \text{ No - Go to } \textbf{SC 6.2}$	ĺ
SC 6.2.	Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger?	ĺ
00	☐ Yes = Category II ☐ No - Go to SC 6.3	ĺ
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1	ı
	ac?	
	☐ Yes = Category III ☐ No = Category IV	
Catego	ry of wetland based on Special Characteristics	
If you ar	nswered No for all types, enter "Not Applicable" on Summary Form	



0 50 100

Feet

150-ft Buffer

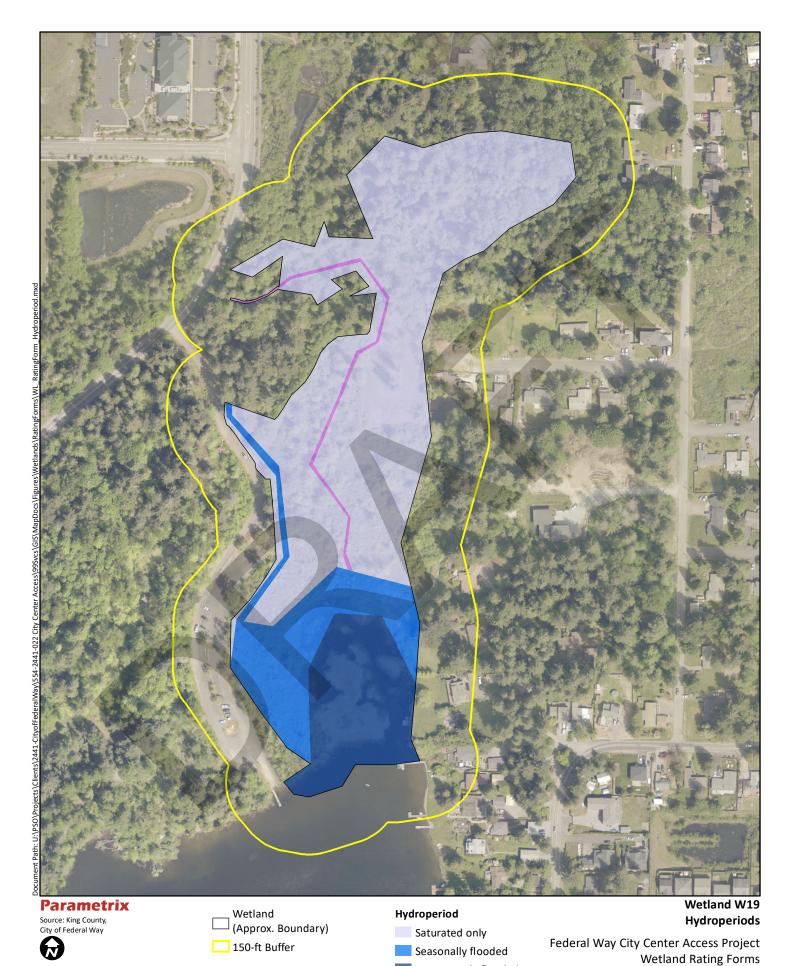
Aquatic Bed (AB)

Palustrine Emergent (PEM) Palustrine Scrub Shrub (PSS)

Palustrine Forested (PFO)

Federal Way City Center Access Project **Wetland Rating Forms**

Federal Way, WA

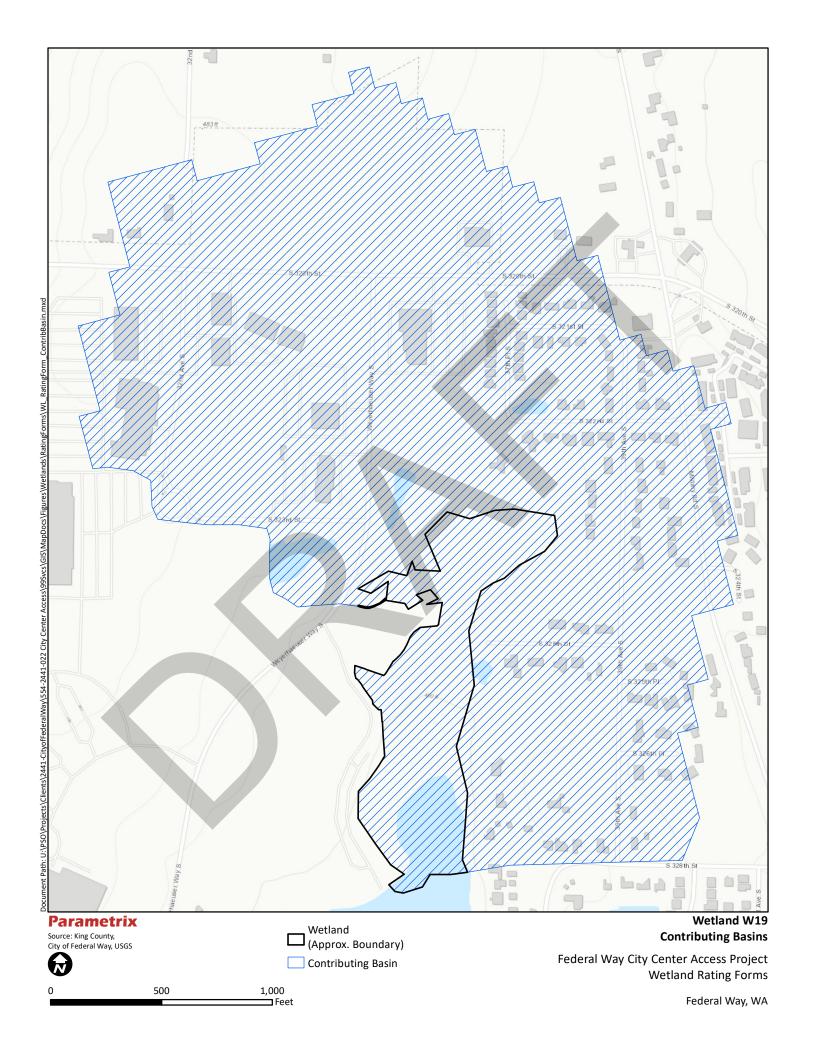


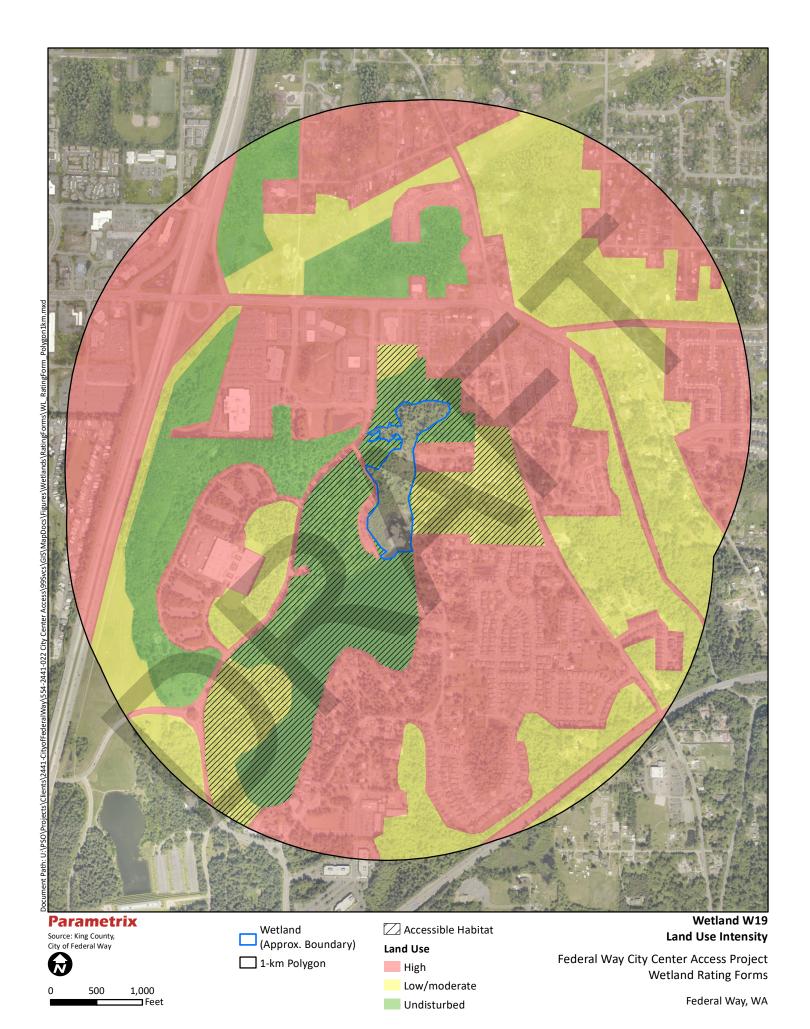
Permanently flooded

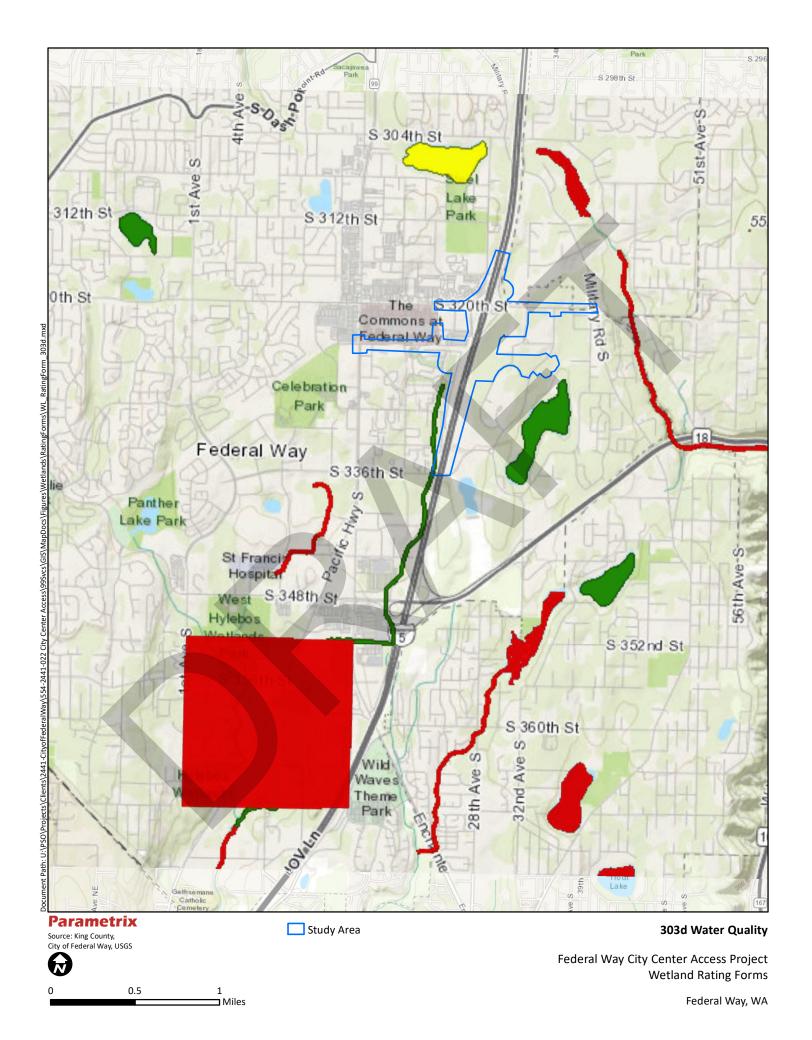
Seasonally flowing stream

Federal Way, WA

0 50 100 Feet







RATING SUMMARY – Western Washington

Name of wetland (or ID #):	Wetland 20		Date of site visit:	5/3/2021
Rated by Amanda Weiss		Trained by Ecology? ☑ Yes □ No	Date of training	2020
HGM Class used for ratir	ng Slope	Wetland has multi	ole HGM classes? □	Yes ☑ No
	-	with out the figures requested (figures ca l photo/map_ESRI	n be combined).	
OVERALL WETLAND C	ATEGORY _	(based on functions ☑ or spec	ial characteristics □	
1. Category of wetla	nd based on F	FUNCTIONS		
	Category I -	Total score = 23 - 27	Score for each	
	Category II	- Total score = 20 - 22	function based	
	Category III	- Total score = 16 - 19	on three	
X	Category IV	′ - Total score = 9 - 15	ratings	
			(order of ratings	
I.	mnrovina	Hydrologic Habitat	lianot	

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	List app	ropriate rating	g (H, M, L)	
Site Potential	M	L	L	
Landscape Potential	M	L	L	
Value	M	M	L	Total
Score Based on Ratings	6	4	3	13

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

2. Category based on SPECIAL CHARACTERISTICS of wetland

Category
Х

Maps and Figures required to answer questions correctly for Western Washington

Depressional Wetlands

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

Riverine Wetlands

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

Lake Fringe Wetlands

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

Slope Wetlands

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

HGM Classification of Wetland in Western Washington

For questions 1 -7, the criteria described must apply to the entire unit being rated. If 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 th	ne water levels in the entire unit usuall	y controlled by tides except during floods?
V	NO - go to 2	☐ YES - the wetland class is Tidal Fringe - go to 1.1
1.1	Is the salinity of the water during per	ods of annual low flow below 0.5 ppt (parts per thousand)?
	If your wetland can be classified as a	Freshwater Tidal Fringe use the forms for Riverine wetlands. If tuarine wetland and is not scored. This method cannot be
	ntire wetland unit is flat and precipitation	on is the only source (>90%) of water to it. Γ sources of water to the unit.
✓	NO - go to 3 If your wetland can be classified as a	☐ YES - The wetland class is Flats Flats wetland, use the form for Depressional wetlands.
	the entire wetland unit meet all of the The vegetated part of the wetland is plants on the surface at any time of t At least 30% of the open water area	on the shores of a body of permanent open water (without any ne year) at least 20 ac (8 ha) in size;
V	NO - go to 4	□ YES - The wetland class is Lake Fringe (Lacustrine Fringe)
\tag{7}	the entire wetland unit meet all of the The wetland is on a slope (<i>slope can</i> The water flows through the wetland may flow subsurface, as sheetflow, on the water leaves the wetland witho	be very gradual), in one direction (unidirectional) and usually comes from seeps. It in a swale without distinct banks.
	NO - go to 5	☑ YES - The wetland class is Slope
		ype of wetlands except occasionally in very small and shallow s are usually <3 ft diameter and less than 1 ft deep).
5. Does t	the entire wetland unit meet all of the The unit is in a valley, or stream char from that stream or river, The overbank flooding occurs at leas	nnel, where it gets inundated by overbank flooding
	NO - go to 6	☐ YES - The wetland class is Riverine
NOTE: T	he Riverine unit can contain depression	ons that are filled with water when the river is not flooding.

\\/ - 4	14/00	
Wetland name or number	VVZU	

. •	raphic depression in which water ponds, or is saturated to the surface, at ns that any outlet, if present, is higher than the interior of the wetland.
□ NO - go to 7	☐ YES - The wetland class is Depressional
The unit does not pond surface water	a very flat area with no obvious depression and no overbank flooding? more than a few inches. The unit seems to be maintained by high may be ditched, but has no obvious natural outlet.
□ NO - go to 8	☐ YES - The wetland class is Depressional

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

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

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

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

SLOPE WETLANDS		
Water Quality Functions - Indicators that the site functions to im	prove water quality	
S 1.0. Does the site have the potential to improve water quality?		
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 elevation for every 100 ft of horizontal distance)	ft vertical drop in	
Slope is 1% or less	points = 3	2
Slope is > 1% - 2%	points = 2	۷
Slope is > 2% - 5%	points = 1	
Slope is greater than 5%	points = 0	
S 1.2. The soil 2 in below the surface (or duff layer) is true clay or true organic		0
(use NRCS definitions):	Yes = 3 No = 0	O
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollut Choose the points appropriate for the description that best fits the plants in the means you have trouble seeing the soil surface (>75% cover), and uncut means mowed and plants are higher than 6 in.	wetland. <i>Dense</i> s not grazed or	
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	6
Dense, uncut, herbaceous plants > ½ of area	points = 3	
Dense, woody, plants > ½ of area	points = 2	
Dense, uncut, herbaceous plants > 1/4 of area	points = 1	
Does not meet any of the criteria above for plants	points = 0	
	in the boxes above	8
Rating of Site Potential If score is: ☐ 12 = H ☐ 6 - 11 = M ☐ 0 - 5 = L	Record the rating on	the first page
S 2.0. Does the landscape have the potential to support the water quality function	on of the site?	
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
S 2.2. Are there other sources of pollutants coming into the wetland that are		
not listed in question S 2.1?		0
Other Sources	Yes = 1 No = 0	
Total for S 2 Add the points	in the boxes above	1
Rating of Landscape Potential If score is: ☑ 1 - 2 = M □ 0 = L	Record the rating on	the first page
S 3.0. Is the water quality improvement provided by the site valuable to society'	?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a stream, river, lake, or marine water that is on the 303(d) list?	Yes = 1 No = 0	0
S 3.2. Is the wetland in a basin or sub-basin where water quality is an issue? At least one aquatic resource in the basin is on the 303(d) list.	Yes = 1 No = 0	1
S 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? Answer YES if there is a TMDL for the basin in which the unit is found?	Yes = 2 No = 0	0
Total for S 3 Add the points	in the boxes above	1

SLOPE WETLANDS		
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion		
S 4.0. Does the site have the potential to reduce flooding and stream erosion?		
S 4.1. Characteristics of plants that reduce the velocity of surface flows during spoints appropriate for the description that best fits conditions in the wetland. Stephould be thick enough (usually $> 1/8$ in), or dense enough, to remain erect during the state of	ems of plants	0
Dense, uncut, rigid plants cover > 90% of the area of the wetland All other conditions	points = 1 points = 0	
Rating of Site Potential If score is: □ 1 = M ☑ 0 = L Record the rating on the first page		

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

_	
Rating of Landscape Potential If score is: 1 = M 0 = L	Record the rating on the first page

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

Rating of Value If score is:

2 - 4 = H

1 = M

0 = L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

These questions apply to wetlands of all HGM classes. HABITAT FUNCTIONS - Indicators that site functions to provide important habitat H 1.0. Does the site have the potential to provide habitat? H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of 1/4 ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked. ☐ Aquatic bed 4 structures or more: points = 4 0 ☑ Emergent 3 structures: points = 2 ☐ Scrub-shrub (areas where shrubs have > 30% cover) 2 structures: points - 1 ☐ Forested (areas where trees have > 30% cover) 1 structure: points = 0 If the unit has a Forested class, check if: ☐ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or 1/4 ac to count (see text for descriptions of hydroperiods). □ Permanently flooded or inundated 4 or more types present: points = 3 3 types present: points = 2 ☐ Seasonally flooded or inundated ☑ Occasionally flooded or inundated 2 types present: points = 1 1 types present: points = 0 ☑ Saturated only ☐ Permanently flowing stream or river in, or adjacent to, the wetland ☐ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland 2 points ☐ Freshwater tidal wetland 2 points H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft². Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle 0 If you counted: > 19 species points = 25 - 19 species points = 1< 5 species points = 0H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. 0 None = 0 points Moderate = 2 points Low = 1 pointAll three diagrams in this row are **HIGH** = 3 points

H 1.5. Special habitat features:	
Check the habitat features that are present in the wetland. The number of checks is the number of	<i>'</i>
points.	
☐ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long)	
☐ Standing snags (dbh > 4 in) within the wetland	
☐ Undercut banks are present for at least 6.6 ft (2 m) and/or overhanging plants extends	
at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at	
least 33 ft (10 m)	0
☐ 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 (<i>cut shrubs or trees</i>	
that have not yet weathered where wood is exposed)	<i>></i>
 At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated (structures for egg-laying by amphibians) 	
☐ Invasive plants cover less than 25% of the wetland area in every stratum of plants (see	
H 1.1 for list of strata)	
Total for H 1 Add the points in the boxes above	1
Rating of Site Potential If Score is: ☐ 15 - 18 = H ☐ 7 - 14 = M ☑ 0 - 6 = L Record the rating of	
Rating of Site Potential in Score is. 19-10-H 17-14-W 0-0-L Necord the rating of	Title III'st page
H 2.0. Does the landscape have the potential to support the habitat function of the site?	
H 2.1 Accessible habitat (include only habitat that directly abuts wetland unit).	
Calculate:	
5 % undisturbed habitat + (4 % moderate & low intensity land uses / 2) = 7%	
3 // diffusion bed flabilitat 1 (4 // 11 inductate & low litterisity land uses 7.2.) = 1.70	
If total accessible habitat is:	0
$> \frac{1}{3}$ (33.3%) of 1 km Polygon points = 3	
20 - 33% of 1 km Polygon points = 2	
10 - 19% of 1 km Polygon points = 7	
< 10 % of 1 km Polygon points = 0 H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.	<u>' </u>
Calculate:	
15 % undisturbed habitat + (26 % moderate & low intensity land uses / 2) = 28%	
// undisturbed habitat + (
Undisturbed behitet > 50% of Delvicen	1
Undisturbed habitat > 50% of Polygon points = 3 Undisturbed habitat 10 - 50% and in 1-3 patches points = 2	
Undisturbed habitat 10 - 50% and > 3 patches Undisturbed habitat 10 - 50% and > 3 patches points = 2	
Undisturbed habitat < 10% of 1 km Polygon points = 0	
H 2.3 Land use intensity in 1 km Polygon: If	,
> 50% of 1 km Polygon is high intensity land use points = (-2) -2
≤ 50% of 1km Polygon is high intensity points = (-2	′ I
Total for H 2 Add the points in the boxes above	
Rating of Landscape Potential If Score is: 4 - 6 = H 1 - 3 = M < 1 = L Record the rating of Landscape Potential If Score is:	-
Training of Earnascape Fotontial in Coole is	Tine met page
H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? <i>Choose</i>	
only the highest score that applies to the wetland being rated.	
Site meets ANY of the following criteria: points = 2	<u>></u>
☐ It has 3 or more priority habitats within 100 m (see next page)	
☐ It provides habitat for Threatened or Endangered species (any plant	
or animal on the state or federal lists)	
☐ It is mapped as a location for an individual WDFW priority species	0
☐ It is a Wetland of High Conservation Value as determined by the	0
Department of Natural Resources	
☐ It has been categorized as an important habitat site in a local or	
regional comprehensive plan, in a Shoreline Master Plan, or in a	
watershed plan	
Site has 1 or 2 priority habitats (listed on next page) with in 100m points = 7	
Site does not meet any of the criteria above points = 0)

Rating of Value If Score is: \square 2 = H \square 1 = M \square 0 = L

Record the rating on the first page

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf_or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

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

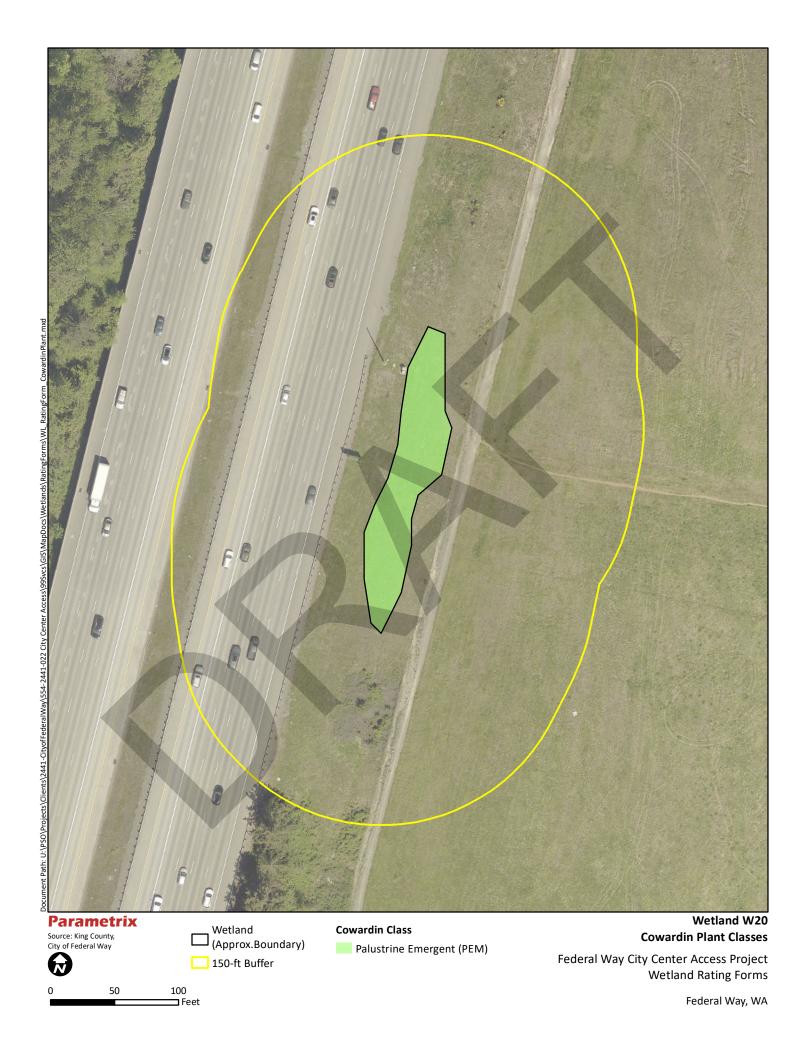
Aspen Stands : Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
Herbaceous Balds: Variable size patches of grass and 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 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
Oregon White Oak : Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
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 (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
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. (<i>full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page</i>).
Caves : A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
Cliffs: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
Talus : Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
Snags and Logs : Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

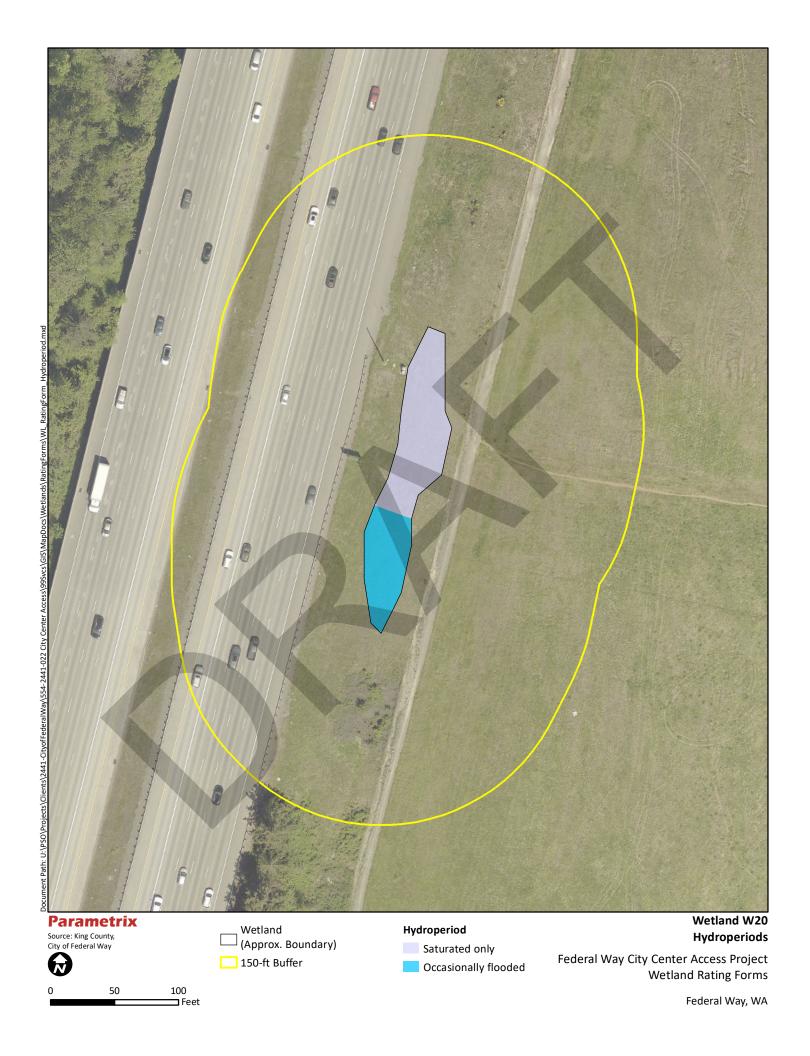
Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

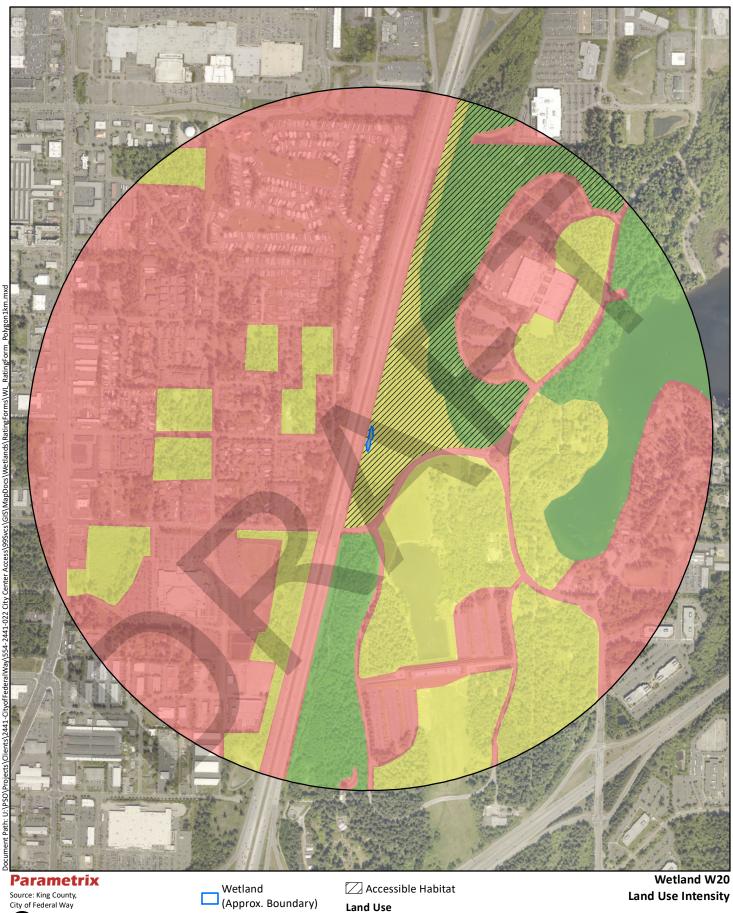
CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland	Туре	Category
	fany criteria that apply to the wetland. List the category when the appropriate criteria are met. Estuarine Wetlands	
SC 1.0. I		
	Does the wetland meet the following criteria for Estuarine wetlands?	
	The dominant water regime is tidal,	
	Vegetated, and	
	With a salinity greater than 0.5 ppt	
CC 1 1	☐ Yes - Go to SC 1.1 ☑ No = Not an estuarine wetland	
SC 1.1.	Is the wetland within a National Wildlife Refuge, National Park, National Estuary	
	Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific	
	Reserve designated under WAC 332-30-151?	
00.4.0	☐ Yes = Category I ☐ No - Go to SC 1.2	
SC 1.2.	Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing,	
	and has less than 10% cover of non-native plant species. (If non-native species are	
	Spartina, see page 25)	
	At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-	
	grazed or un-mowed grassland.	
	The wetland has at least two of the following features: tidal channels, depressions with	
	open water, or contiguous freshwater wetlands.	
	☐ Yes = Category I ☐ No = Category II	
	Wetlands of High Conservation Value (WHCV)	
SC 2.1.	Has the WA Department of Natural Resources updated their website to include the list of	
	Wetlands of High Conservation Value?	
SC 2.2.	Is the wetland listed on the WDNR database as a Wetland of High Conservation Value?	
	☐ Yes = Category I ☑ No = Not WHCV	
SC 2.3.	Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland?	
	http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf	
	☐ Yes - Contact WNHP/WDNR and to SC 2.4 ☐ No = Not WHCV	
SC 2.4.	Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation	
	Value and listed it on their website?	
	☐ Yes = Category I ☐ No = Not WHCV	
SC 3.0.	Bogs	
	Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation	
	in bogs? Use the key below. If you answer YES you will still need to rate the	
	wetland based on its functions.	
SC 3.1.	Does an area within the wetland unit have organic soil horizons, either peats or mucks,	
	that compose 16 in or more of the first 32 in of the soil profile?	
	☐ Yes - Go to SC 3.3 ☐ No - Go to SC 3.2	
SC 3.2.	Does an area within the wetland unit have organic soils, either peats or mucks, that are	
	less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic	
	ash, or that are floating on top of a lake or pond?	
	☐ Yes - Go to SC 3.3 ☑ No = Is not a bog	
SC 3.3.	Does an area with peats or mucks have more than 70% cover of mosses at ground	
	level, AND at least a 30% cover of plant species listed in Table 4?	
	☐ Yes = Is a Category I bog ☐ No - Go to SC 3.4	
	NOTE: If you are uncertain about the extent of mosses in the understory, you may	
	substitute that criterion by measuring the pH of the water that seeps into a hole dug at	
	least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present,	
	the wetland is a bog.	
SC 3.4.	Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir,	
3 3. 1.	western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann	
	spruce, or western white pine, AND any of the species (or combination of species) listed	
	in Table 4 provide more than 30% of the cover under the canopy?	
	•	
	□ Yes = Is a Category I bog □ No = Is not a bog	

SC 4.0.	Forested Wetlands	
	Does the wetland have at least <u>1 contiguous acre</u> of forest that meets one of these	
	criteria for the WA Department of Fish and Wildlife's forests as priority habitats? <i>If you</i>	
	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/ac	
	(20 trees/ha) that are at least 200 years of age OR have a diameter at breast height	
	(dbh) of 32 in (81 cm) or more.	
	Mature forests (west of the Cascade Crest): Stands where the largest trees are 80- 200	
	years old OR the species that make up the canopy have an average diameter (dbh)	
	exceeding 21 in (53 cm).	
	☐ Yes = Category I ☑ No = Not a forested wetland for this section	
SC 5.0.	Wetlands in Coastal Lagoons	
	Does the wetland meet all of the following criteria of a wetland in a coastal lagoon?	
	The wetland lies in a depression adjacent to marine waters that is wholly or partially	
	separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently,	
	rocks	
	The lagoon in which the wetland is located contains ponded water that is saline or	
	brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon (<i>needs to</i>	
	be measured near the bottom)	*
00 5 4	☐ Yes - Go to SC 5.1 ☑ No = Not a wetland in a coastal lagoon	
	Does the wetland meet all of the following three conditions?	
	The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing),	
	and has less than 20% cover of aggressive, opportunistic plant species (see list of	
	species on p. 100).	
	At least $\frac{3}{4}$ 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 $^{1}/_{10}$ ac (4350 ft ²)	
00.00	☐ Yes = Category I ☐ No = Category II	
SC 6.0.	Interdunal Wetlands Is the wetland west of the 1990 line (also called the Western Boundary of Unland	
	Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? <i>If you answer yes you will still need to rate the wetland</i>	
	based on its habitat functions.	
	In practical terms that means the following geographic areas:	
	Long Beach Peninsula: Lands west of SR 103	
	Grayland-Westport: Lands west of SR 105	
	Ocean Shores-Copalis: Lands west of SR 115 and SR 109	
	☐ Yes - Go to SC 6.1 ☑ No = Not an interdunal wetland for rating	
SC 6.1.	Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form	
	(rates H,H,H or H,H,M for the three aspects of function)?	
	☐ Yes = Category I ☐ No - Go to SC 6.2	
SC 6.2.		
	☐ Yes = Category II ☐ No - Go to SC 6.3	
SC 6.3.	Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and	
	1 ac?	
	☐ Yes = Category III ☐ No = Category IV	
_	ry of wetland based on Special Characteristics	
If you or	rewared No for all types, enter "Not Applicable" on Summary Form	









1,000 Feet 500

1-km Polygon

Land Use

High

Low/moderate

Undisturbed

Federal Way City Center Access Project **Wetland Rating Forms**

Federal Way, WA

